ALTERNATIVE WORKSHEETS

November 2013

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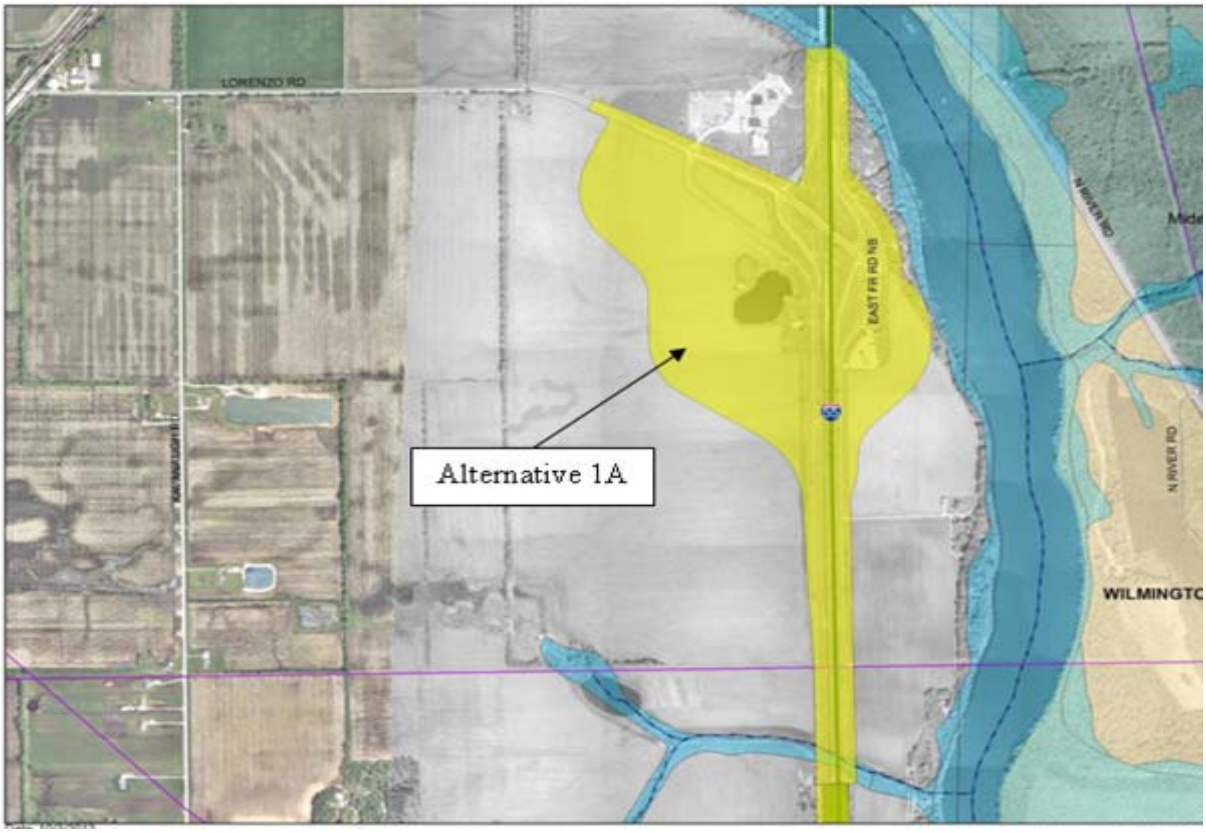
These Alternatives Worksheets were originally developed as part of Appendix A of the Alternatives to be Carried Forward Technical Memorandum, released on September 6, 2013. These Worksheets document the major revisions to existing alternatives or creation of new alternatives through the iterative development of the mainline and interchange alternatives in the Illiana Corridor Tier Two studies. The original Alternatives Worksheets of the ACFTM, plus changes to these worksheets as well as new worksheets resulting from additional revisions to the alternatives, are compiled here as a supplement to Section 2.0 of the Tier Two Draft EIS.

Figure D-1. Alternative Worksheet

Alternative Description: An alternative within Section 1 at the location indicated on the map key below was evaluated. This alternative includes extending the Corridor north to Lorenzo Road as compared to the Tier One working alignment.

Reason for Alternative: This alternative was requested by IDOT and FHWA to include the results of a separate IDOT Phase 1 Study of the Lorenzo Road interchange (I-55 Wilmington Study) into the Illiana Corridor Study as part of the western logical termini for the Illiana Corridor.

Map Key:



Impacts Avoided: This alternative would not result in avoiding or reducing any impacts.

New Impacts: As an addition to the project scope and footprint, new impacts will be incurred including 2.0 acres of floodplain, 80.4 acres of farmland, 70.8 acres of intermodal, 3.7 acres of water bodies, and 1.2 acres of wetland.

Transportation Performance Benefits: This alternative would not result in any discernible transportation benefits.

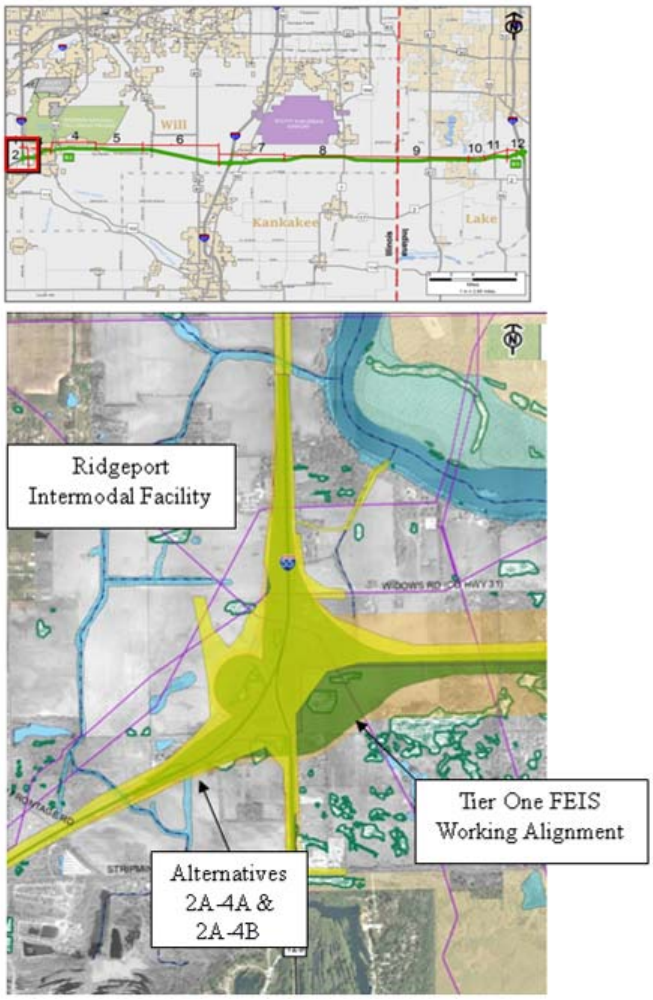
Conclusion: This alternative is carried forward for further analysis as part of each alternative within Section 3.0 of the DEIS.

Figure D-2. Alternatives Worksheet

Alternative description: An alternative within Section 2 at the location indicated on the map key below was evaluated. This alternative includes extending the southern project terminus along I-55 to the south, providing an additional travel lane in each direction along IL-129 south of I-55, and extending IL-129 north of I-55 to provide full access connections to I-55 and IL-129 as compared to the Tier One working alignment.

Reason for Alternative: This alternative was developed to be compatible with IDOT's long-term transportation plans for a six-lane facility along this section of I-55 in Will County. The alignment was lengthened within the existing I-55 right of way to meet design standards for tying back into the existing four-lane facility south of the proposed interchange. This alternative was also evaluated as a result of the travel demand modeling along IL-129, and to provide access to the planned intermodal development west of I-55 in this area.

Map Key:



Impacts Avoided: Alternatives 2A would result in reducing impacts to 6.3 acres of wetlands and avoid impacts to one residential building and one commercial building.

New Impacts: Alternative 2A would result in new impacts to 12.2 acres of the intermodal facility, 2.1 acres of floodplains and 2.9 miles of stream impacts.

Transportation Performance Benefits: I-55 would have higher traffic capacity through the proposed Illiana interchange, would provide the capacity requirements along this section of IL-129 as required based on the travel demand modeling for the year 2040. Full access between IL-129, I-55 and Illiana would also be provided.

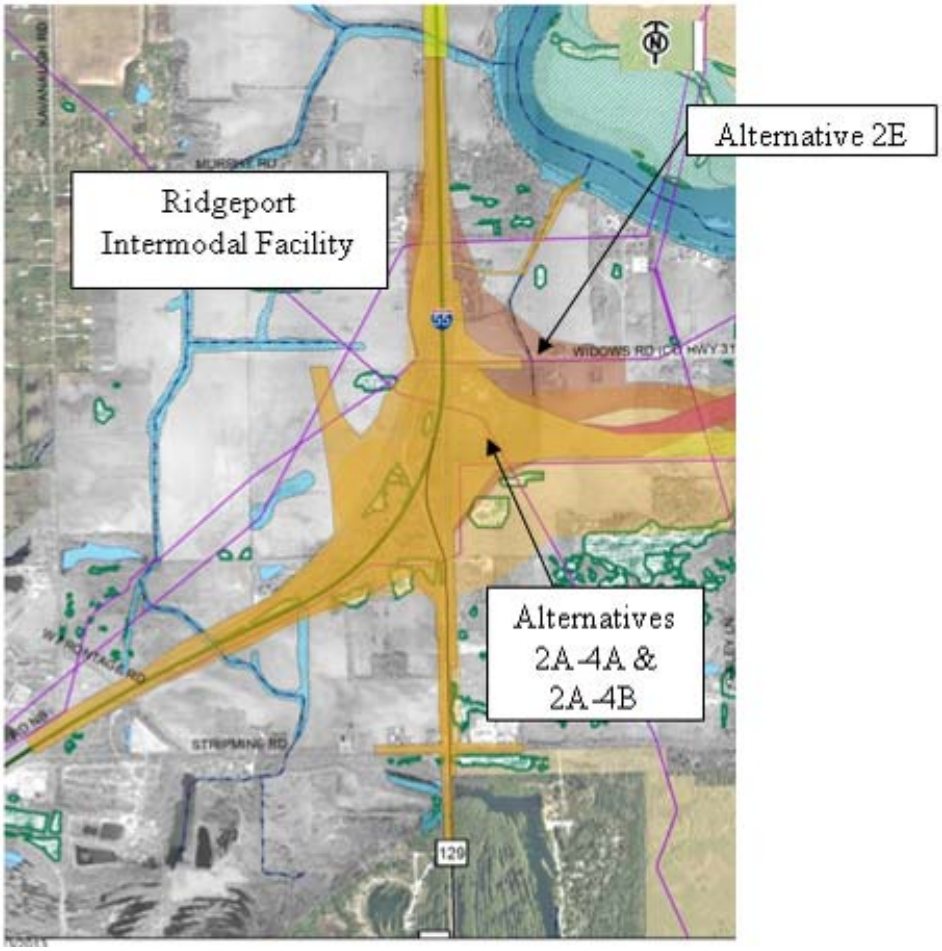
Conclusion: This alternative is carried forward for further analysis as part of each alternative within Section 3.0 of the DEIS, based on transportation benefits.

Figure D-3. Alternatives Worksheet

Alternative description: An alternative within Section 2 at the location indicated on the map key below was evaluated. This alternative is needed for compatibility with the adjacent Alternative 3E as shown in figure A-5.

Reason for Alternative: This alternative (2E) was evaluated to avoid impacts to a large high quality wetland which is partially impacted by Alternative 3A identified in a Resource Agency Field Visit held June 17th.

Map Key:



Impacts Avoided: This alternative would not result in avoiding or reducing any impacts.

New Impacts: As compared to Alternative 2A, Alternative 2E would result in new impacts to 6 acres of the intermodal facility, 0.4 acres of wetlands, 1.9 acres of floodplains, 2.5 acres of forests, 26.3 acres of farmland, 8 residential buildings, 3 agriculture buildings and 8 non-agriculture buildings.

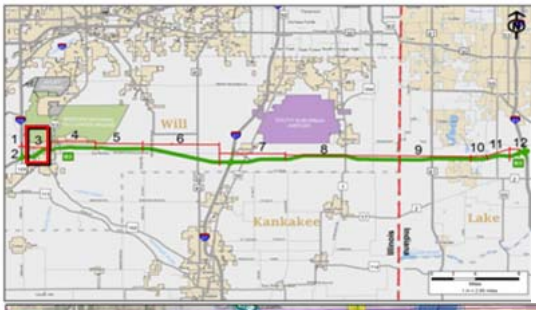
Transportation Performance Benefits: This alternative would not result in any discernible transportation benefits.

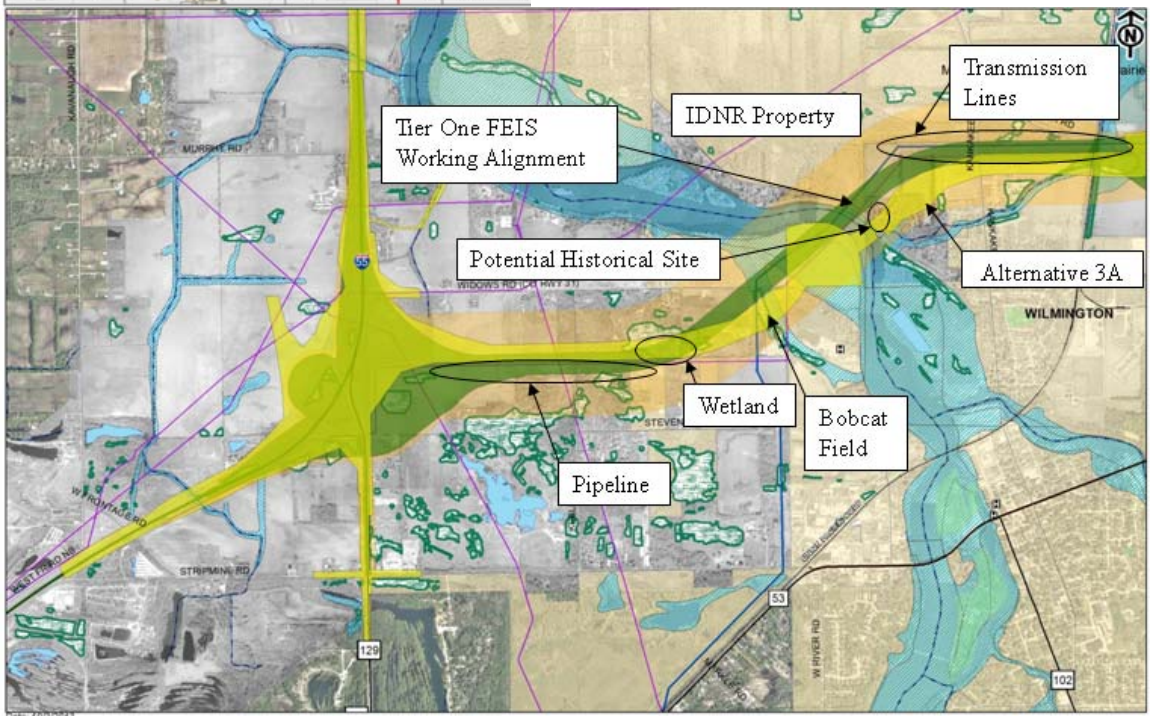
Conclusion: Alternative 2E is eliminated from further consideration based on increased impacts and because Alternative 3E is also eliminated (refer to Figure A-5).

Figure D-4. Alternatives Worksheet

Alternative description: An alternative within Section 3 at the location indicated on the map key below was evaluated. This alternative includes shifting to the north from I-55 to the Kankakee River, and shifting to the south from the Kankakee River to IL-53, as compared to the Tier One working alignment.
Reason for Alternative: This alternative was evaluated to avoid impacts to the Des Plaines Fish and Wildlife Area (DPFWA), which is IDNR property and avoid impacts to a potentially historic property along the Kankakee River (since received a preliminary determination to be not eligible by Illinois Historic Preservation Agency). A petroleum pipeline was also identified through the Landowner Information Meetings, and Commonwealth Edison transmission towers as shown below.

Map Key:





Impacts Avoided: This alternative would eliminate impacts to 2.1 acres of IDNR 4(f) property. It would also avoid the Lynott Summer Home, which has been determined to be eligible for the National Register of Historic Places by the Illinois Historic Preservation Agency. It would also avoid major impacts to utilities, which would require very disruptive and costly utility relocations.

New Impacts: This alternative would result in new impacts to 4.7 acres of wetlands (1.9 acres considered high quality), 25.1 acres of floodplains, 4.4 acres of forests, 6 residential buildings, 2 commercial buildings, 1 farm buildings, a privately operated recreational field, and a pipeline pump structure.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

Conclusion: This alternative is carried forward for further analysis within Section 3.0 of the DEIS, based on avoiding the IDNR property, the eligible historical building and utility relocations. This alternative is further revised as part of Alternative Worksheet D-6.

Figure D-5. Alternatives Worksheet

Alternative description: Five additional alternatives within Section 3 at the location indicated on the map key below were evaluated in comparison to Alternative 3A.

Reason for Alternative: These alternatives were evaluated to avoid impacts to a large high quality wetland which is partially impacted by Alternative 3A identified in a Resource Agency Field Visit held June 17th.

Map Key:

[See Graphic Next Page]

Impacts Avoided: As compared to Alternative 3A, Alternative 3B would reduce impacts to wetlands by 9.6 acres (1.7 acres high quality), Alternative 3C would reduce impacts to wetlands 9.4 acres (0.6 acres high quality), Alternative 3D would reduce impacts to wetlands by 10.7 acres (1.9 acres high quality), Alternative 3E would reduce impacts to wetlands by 9.5 acres (0.6 acres high quality), and Alternative 3F would reduce wetland impacts by 10.6 acres (1.7 acres high quality).

New Impacts: Also as compared to Alternative 3A, Alternative 3B would result in new impacts to 16 residential buildings, a transmission line tower and an additional 1.1 acres of water body impacts. A large skew angle at the Widows Road crossing would be created. Alternative 3C would require a design exception for superelevation transition at the bridge over Widows Rd. Alternative 3D would result in new impacts to 3.2 acres of the IDNR property, 5 transmission line towers and a design speed reduction would be required. Alternative 3E would sever 4 properties and create new impacts to 5 additional properties. Approximately 1400' of retaining wall would be needed along the north side of Illiana, and it would require a design exception for superelevation transition at the ramps to I-55. Alternatives 3B, 3C and 3D would sever nine properties. Alternative 3E (as part of Alternative 2E) would require approximately 77 acres of additional right-of-way needed for the I-55 interchange.

Transportation Performance Impacts: These alternatives would not result in any discernible transportation benefits.

Conclusion: Alternatives 3B and 3F are carried forward for further analysis within Section 3.0 of the DEIS, in addition to Alternative 3A. Alternatives 3B and 3F are further revised as part of Alternative Worksheets D-7 and D-8. Alternatives 3C, 3D and 3E are eliminated from further consideration based on design deficiencies and impacts.

Figure D-5. Alternatives Worksheet (continued)

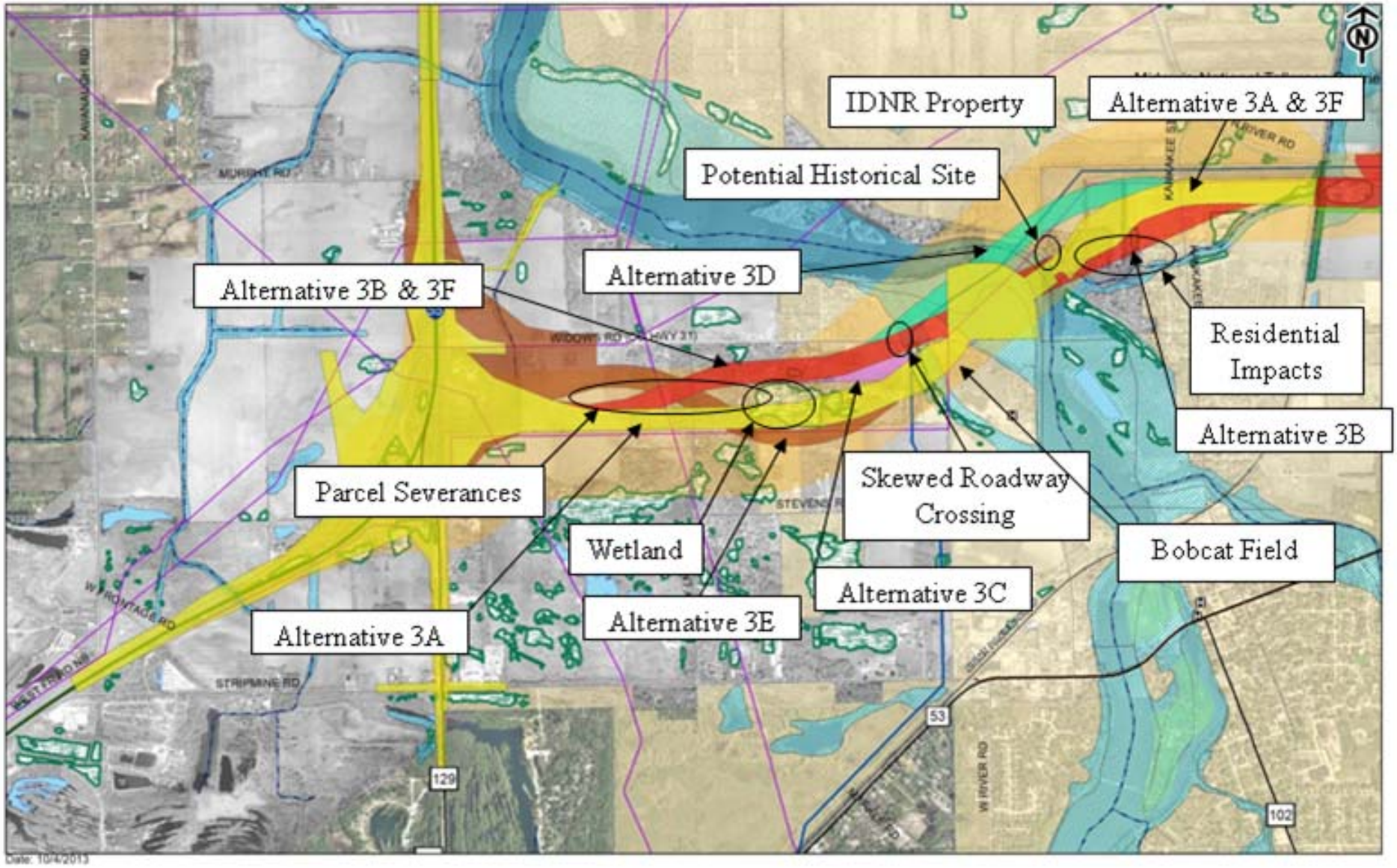
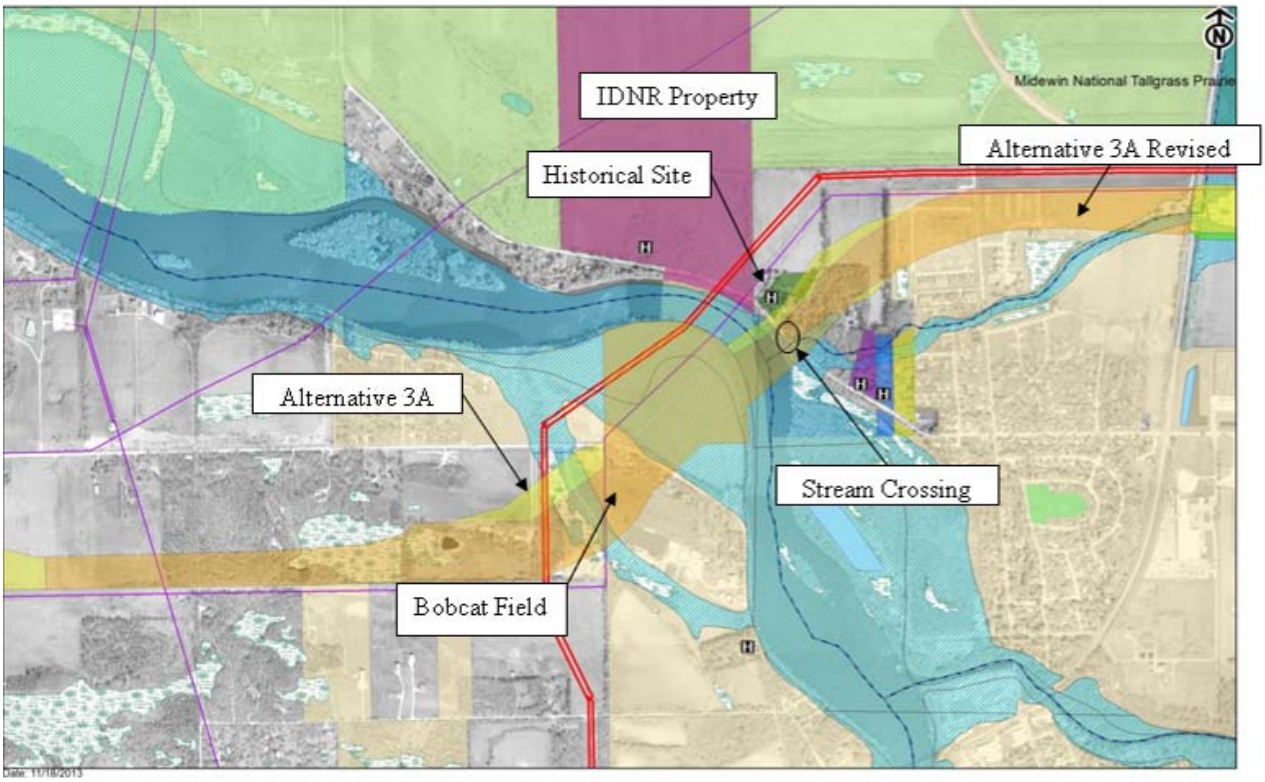


Figure D-6. Alternatives Worksheet

Alternative description: A revision to Alternative 3A at the location indicated on the map key below was evaluated. This revision includes shifting the alignment to the south at and east of the Kankakee River.

Reason for Alternative: This revision was evaluated to avoid an impact to the John P. Lynott Summer Home and the Stone Farmstead, which were determined to be eligible for the NRHP by the Illinois State Historic Preservation Officer (SHPO) in September 2013 and NRHP boundary determined in November 2013.

Map Key:



Impacts Avoided: This revision to Alternative 3A would avoid impacting the John P. Lynott Summer Home and the Stone Farmstead, both determined to be eligible for the NRHP. Impacts to high quality wetlands are reduced by 0.2 acres.

New Impacts: This revision will result in an increase in floodplain impacts by 6.0 acres, water bodies by 1.1 acres, forests by 4.1 acres, and residential buildings by 2.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

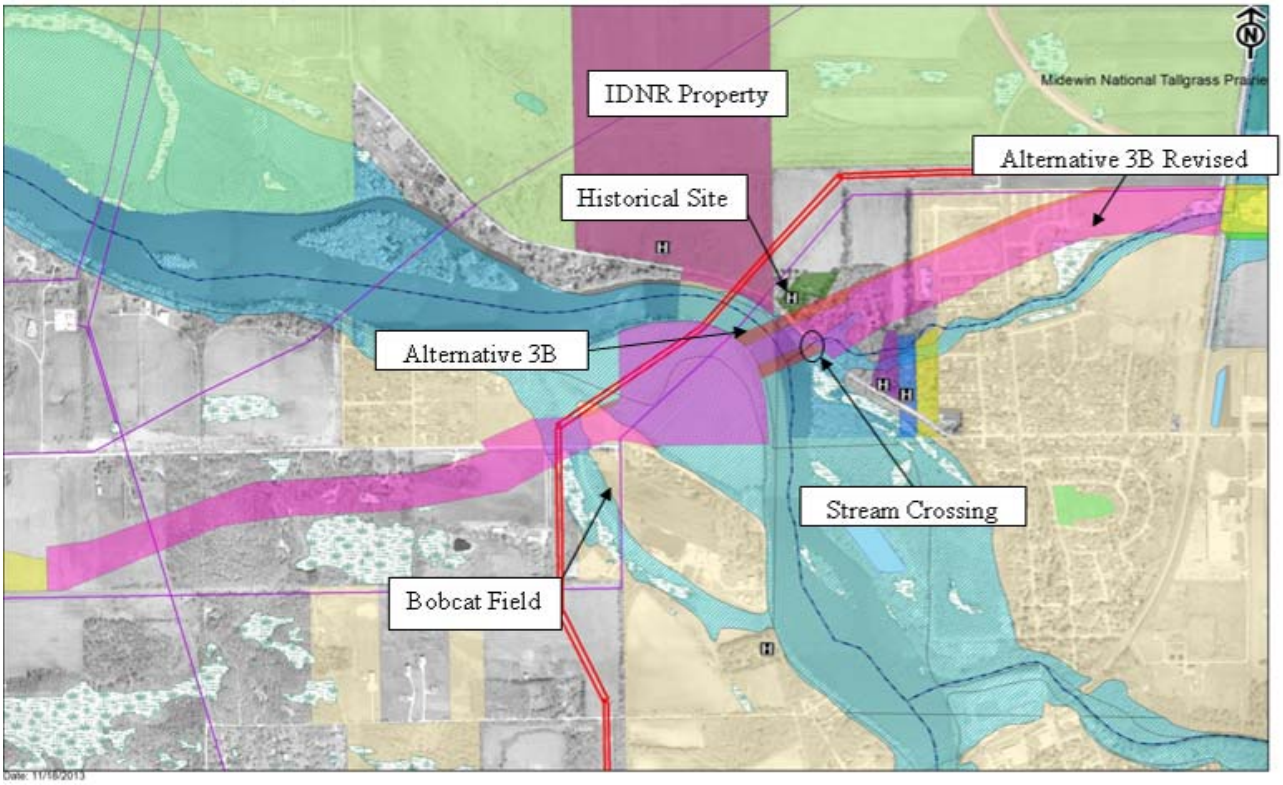
Conclusion: Based on avoidance of the NRHP eligible properties, this revision of Alternative 3A is carried forward for further analysis within Section 3.0 of the DEIS.

Figure D-7. Alternatives Worksheet

Alternative description: A revision to Alternative 3B at the location indicated on the map key below was evaluated. This revision includes shifting the alignment to the south at and east of the Kankakee River.

Reason for Alternative: This revision was evaluated to avoid an impact to the John P. Lynott Summer Home and the Stone Farmstead, which were determined to be eligible for the NRHP by the Illinois State Historic Preservation Officer (SHPO) in September 2013 and NRHP boundary determined in November 2013.

Map Key:



Impacts Avoided: This revision to Alternative 3B would avoid impacting the John P. Lynott Summer Home and the Stone Farmstead, both determined to be eligible for the NRHP. This revision would result in reduced impacts to floodplains by 1.7 acres, to water bodies by 2.2 acres, and to forests by 1.5 acres.

New Impacts: This revision will not result in any increased impacts to socioeconomic or environmental resources.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

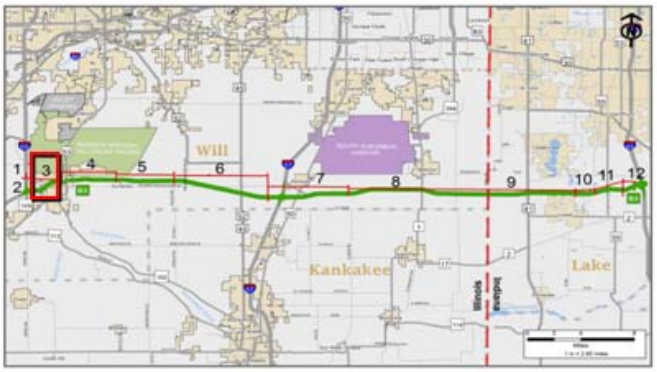
Conclusion: Based on avoidance of the NRHP eligible properties, this revision of Alternative 3B is carried forward for further analysis within Section 3.0 of the DEIS.

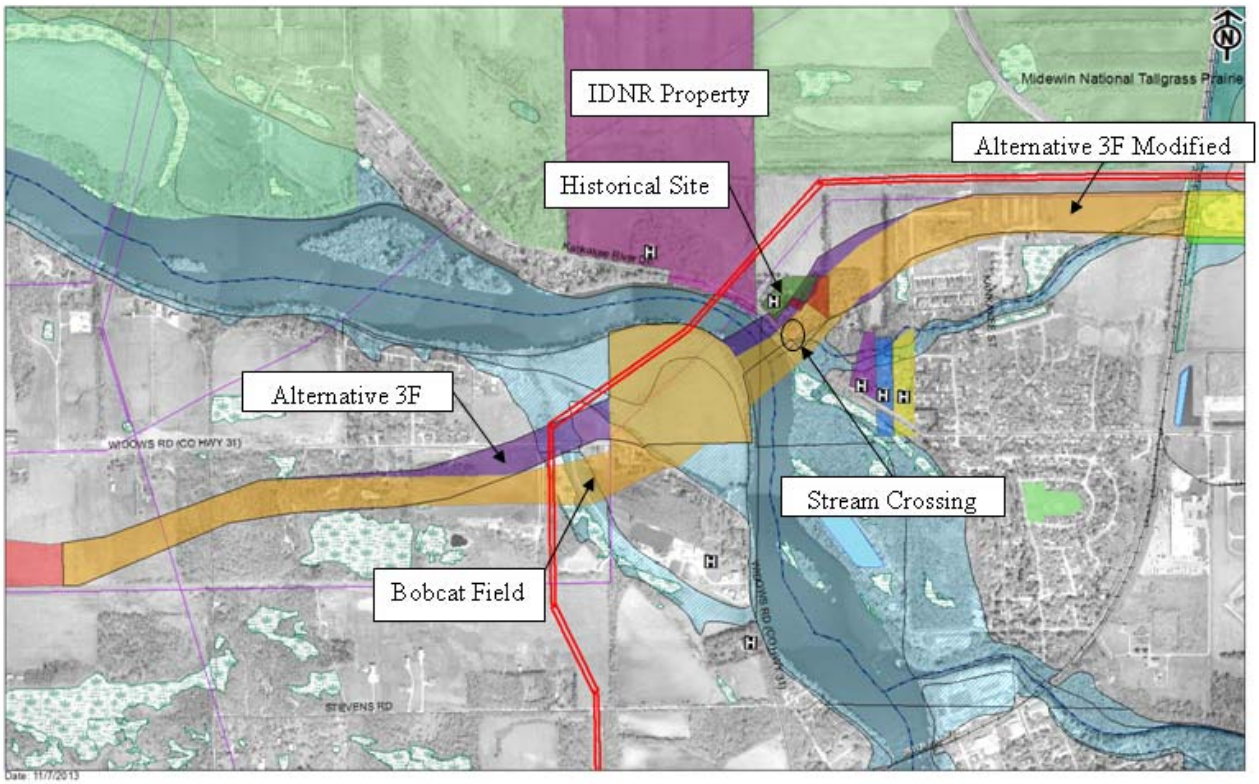
Figure D-8. Alternatives Worksheet

Alternative description: A revision to Alternative 3F at the location indicated on the map key below was evaluated. This revision includes shifting the alignment to the south at and east of the Kankakee River.

Reason for Alternative: This revision was evaluated to avoid an impact to the John P. Lynott Summer Home and the Stone Farmstead, which were determined to be eligible for the NRHP by the Illinois State Historic Preservation Officer (SHPO) in September 2013 and NRHP boundary determined in November 2013.

Map Key:





Impacts Avoided: This revision to Alternative 3F would avoid impacting the John P. Lynott Summer Home and the Stone Farmstead, both determined to be eligible for the NRHP. This revision would result in reduced impacts to water bodies by 1.0 acres, forests by 0.2 acres, and farmland by 6.3 acres.

New Impacts: This revision will result in an increase in impacts to wetlands by 1.4 acres, high quality wetlands by 1.3 acres, floodplains by 4.5 acres, and residential buildings by 3.

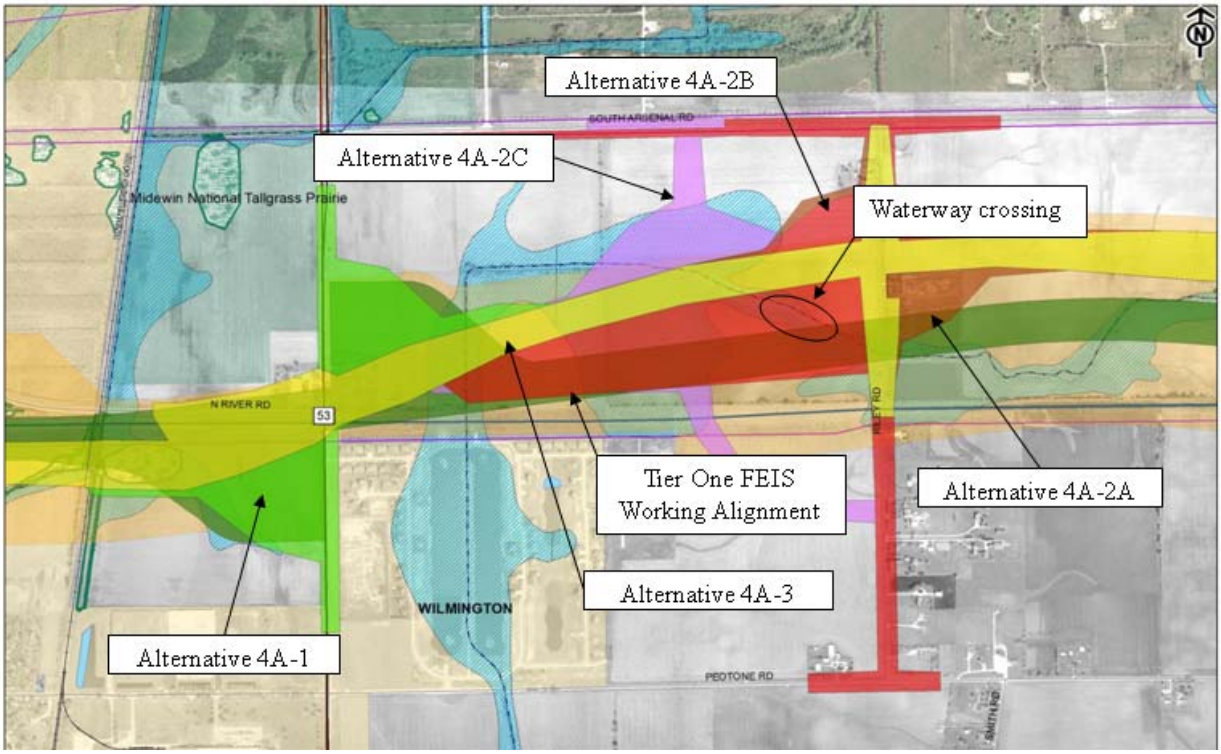
Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

Conclusion: Based on avoidance of the NRHP eligible properties, this revision of Alternative 3F is carried forward for further analysis within Section 3.0 of the DEIS.

Figure D-9. Alternatives Worksheet

Alternative description: Alternatives within Section 4 at the location indicated on the map key below were evaluated. These alternatives include shifting the alignment to the north at Riley Road as compared to the Tier One working alignment, and adding several alternative interchange types at Riley Road.
Reason for Alternative: The alignment alternative was evaluated to reduce the number of waterway crossings at this proposed interchange location. The interchange type alternatives were based on further analysis of interchange types and impacts as discussed in the IL-53 interchange type study.

Map Key:



Impacts Avoided: This alternative would avoid an interchange at IL-53 (Alternate Route 66) and three waterway crossings along ramps.

New Impacts: As compared to an interchange at IL-53, interchange Type 2A would result in new impacts to one residential building and seven farm buildings. The other interchange types would reduce both residential and agricultural building impacts by one.

Transportation Performance Impacts: Based on the travel demand modeling completed as part of the IL-53 interchange type study, these alternatives would result in an additional 8,985 daily VMT on the local roadway network within the Study Area as compared to an interchange directly at IL-53.

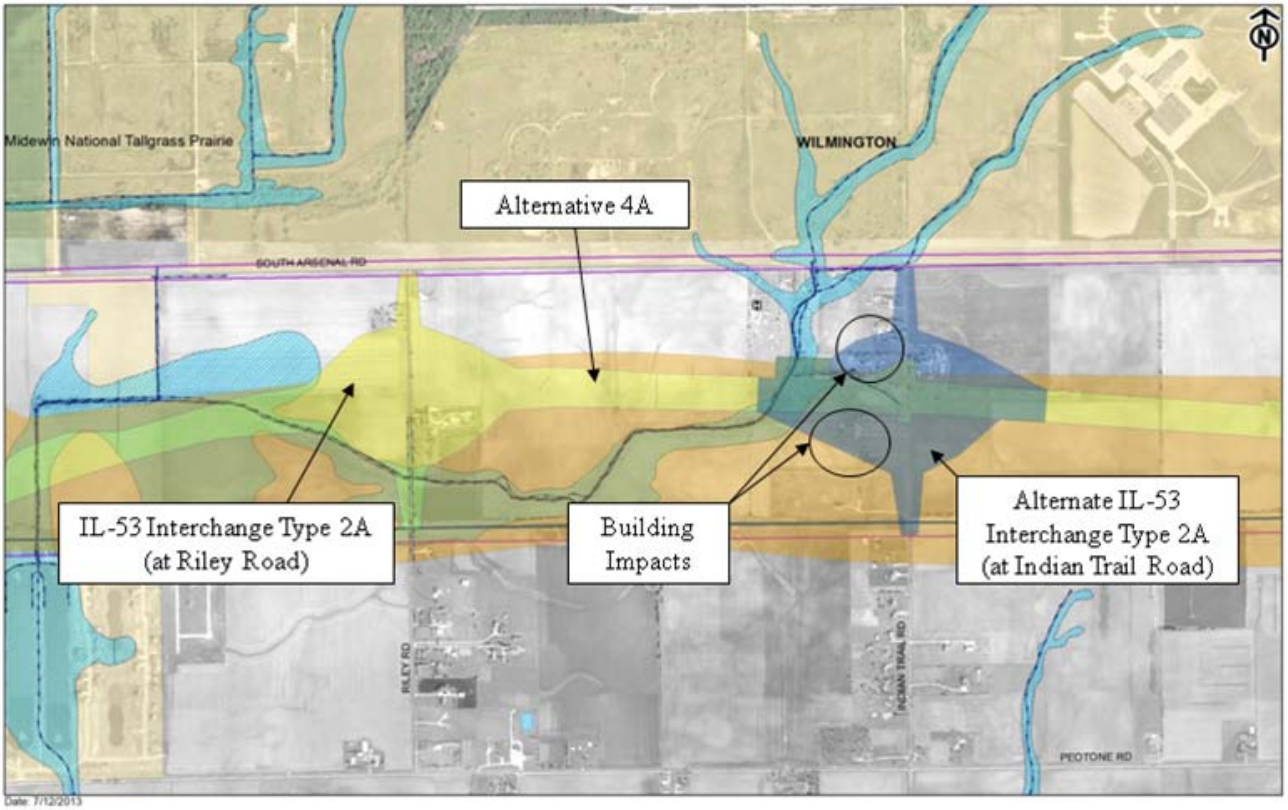
Conclusion: This mainline alternative along with the IL-53 no interchange option (Type 3) is carried forward as part of each alternative for further analysis within Section 3.0 of the DEIS. The IL-53 interchange Types 1, 2A, 2B, 2C and 2D are also carried forward for further analysis within Section 3.0 of the DEIS.

Figure D-10. Alternatives Worksheet

Alternative description: An alternative within Section 4 at the location indicated on the map key below was evaluated. This alternative includes shifting the IL-53 (Alternate Route 66) interchange location from Riley Road to Indian Trail Road.

Reason for Alternative: This alternative was evaluated based on coordination with the Midewin National Tallgrass Prairie organization which requested the design team look at an alternative to the IL-53 interchange Type 2A (at Riley Road).

Map Key:



Impacts Avoided: None.

New Impacts: This alternative would result in an additional 9 building impacts.

Transportation Performance Impacts: Based on the travel demand modeling completed to evaluate this alternative, it would result in an additional 1,592 daily VMT on the local roadway network within the Study Area as compared to the IL-53 interchange Type 2A (Riley Road).

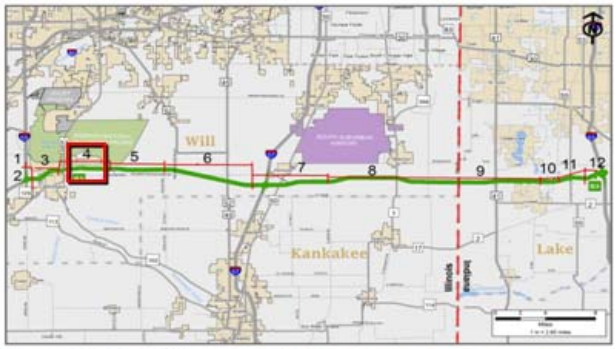
Conclusion: Based on the additional impacts that would result and the increase in VMT on the local roadway network, this alternative was eliminated from further consideration.

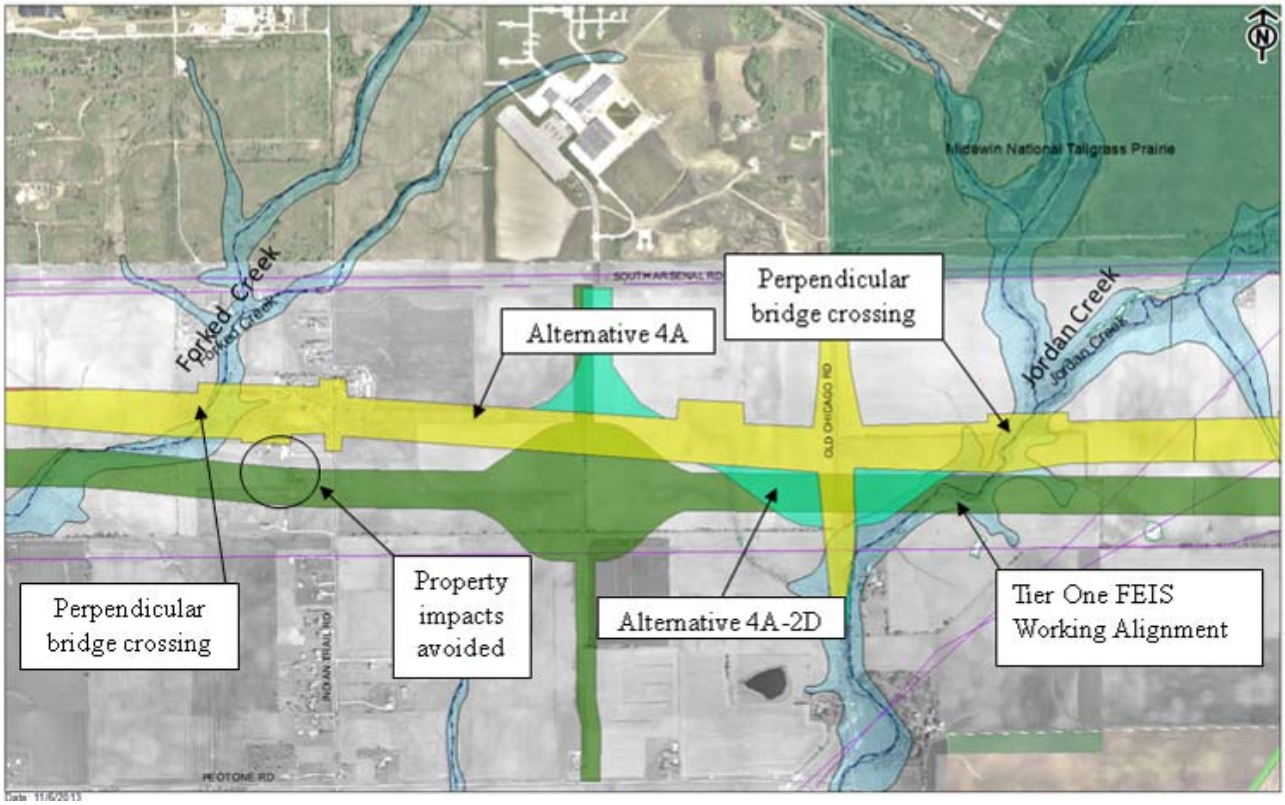
Figure D-11. Alternatives Worksheet

Alternative description: An alternative within Section 4 at the location indicated on the map key below was evaluated. This alternative includes shifting the alignment to the north through this area as compared to the Tier One working alignment and modifying the interchange type at Old Chicago Rd.

Reason for Alternative: This alternative was evaluated to create a more perpendicular bridge crossing of Jordan Creek and Forked Creek, and thereby reducing the structure costs, and to minimize property acquisition impacts. The interchange type change was based on further analysis of interchange types and impacts as discussed in the IL-53 interchange type study.

Map Key:





Impacts Avoided: This alternative would avoid two property impacts as shown above. Complex crossings of 2 creeks were also avoided.

New Impacts: This alternative would result in an additional 5.2 acres of floodplain impacts.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

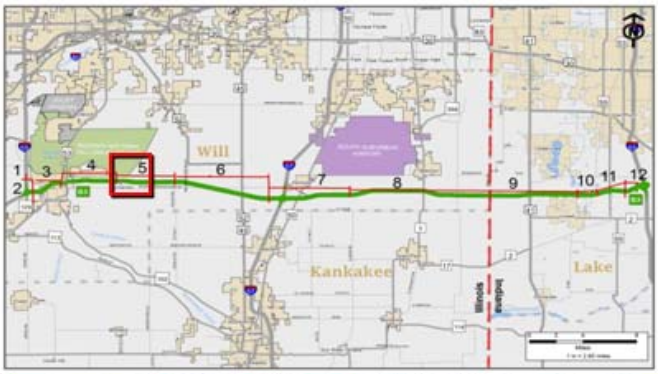
Conclusion: Based on improvements at stream crossings and minimized property impacts, this mainline alternative is carried forward as part of each alternative for further analysis within Section 3.0 of the in conjunction with IL-53 interchange Types 1, 2A, 2B, 2C and 2D.

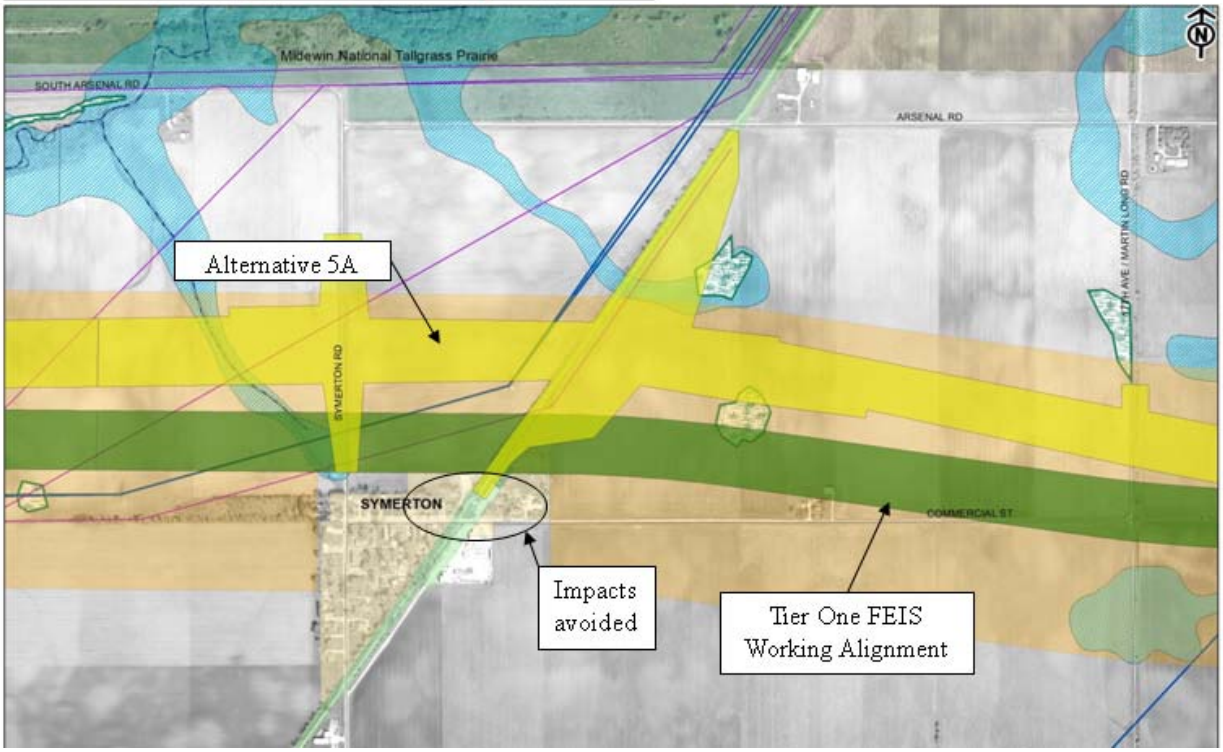
Figure D-12. Alternatives Worksheet

Alternative description: An alternative within Section 5 at the location indicated on the map key below was evaluated. This alternative includes shifting the alignment to the north through this area, as compared to the Tier One working alignment. It also includes realignment of the Wauponsee Glacial Trail.

Reason for Alternative: This alternative was evaluated to avoid impacts to multiple residences and a commercial building along the north side of Commercial Street within Symerton as shown below. The Wauponsee Glacial Trail was realigned to maintain access at all times during construction.

Map Key:





Impacts Avoided: This alternative would avoid 2 residential building and 1 commercial building impact along this portion of Section 5.

New Impacts: This alternative would result in an additional 0.6 acres of wetland and 1.6 acres of floodplain impacts within this portion of Section 5.

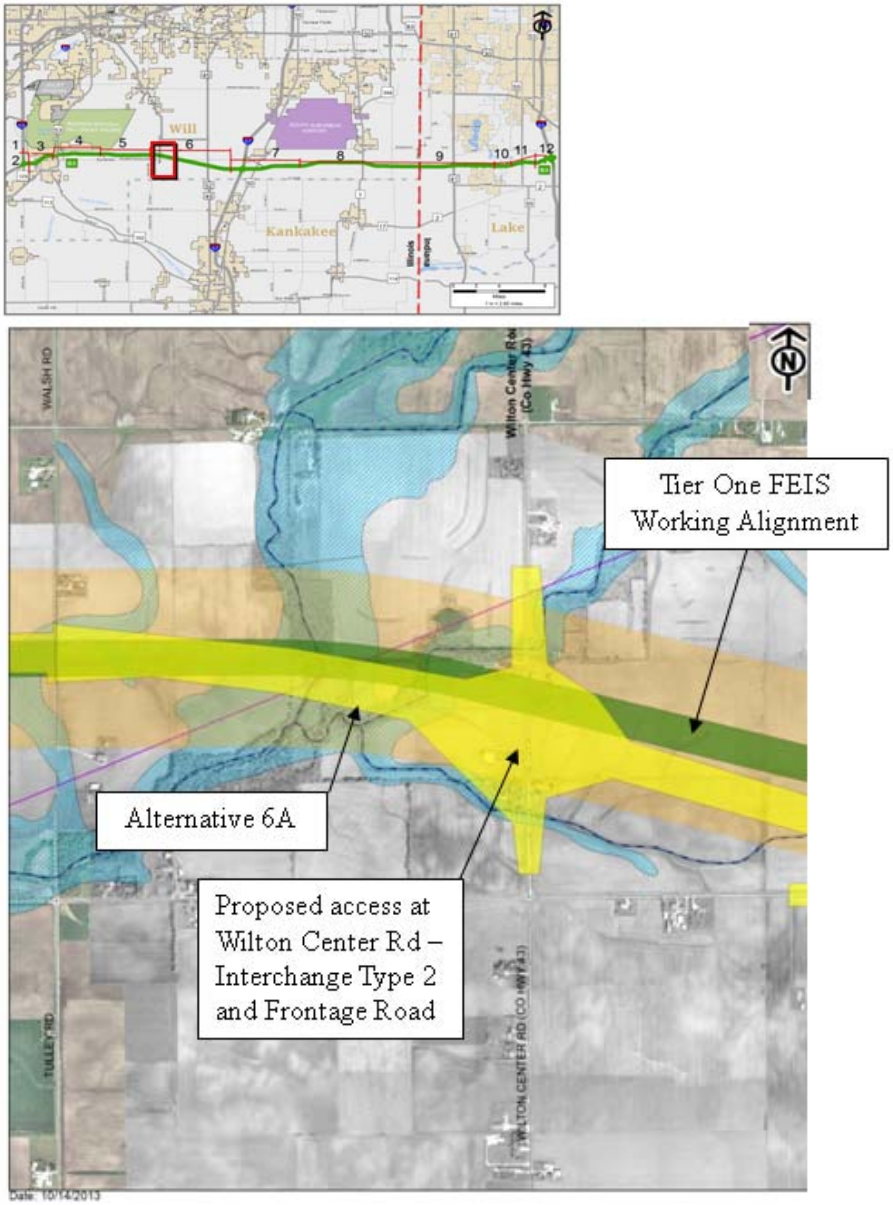
Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

Conclusion: This alternative is carried forward as part of each alternative for further analysis within Section 3.0 of the DEIS, based on minimizing building impacts and maintaining access along the Wauponsee Glacial Trail.

Figure D-13. Alternatives Worksheet

Alternative description: An alternative within Section 6 at the location indicated on the map key below was evaluated. This alternative includes adding an access point at Wilton Center/Co Hwy 43 as a standard diamond interchange.
Reason for Alternative: This alternative was evaluated to provide an additional access point, which was requested by emergency services during one-on-one meetings.

Map Key:



Impacts Avoided: This alternative would not avoid any impacts.

New Impacts: This alternative would result in an additional 0.5 acres of wetland impacts and 17.7 acres of floodplain impacts. 3 residential and 3 farm buildings would be impacted, and an additional 51.6 acres of ROW would be required by this alternative.

Transportation Performance Impacts: This alternative would result in a reduction of 2,100 daily vehicle hours traveled within the south sub region.

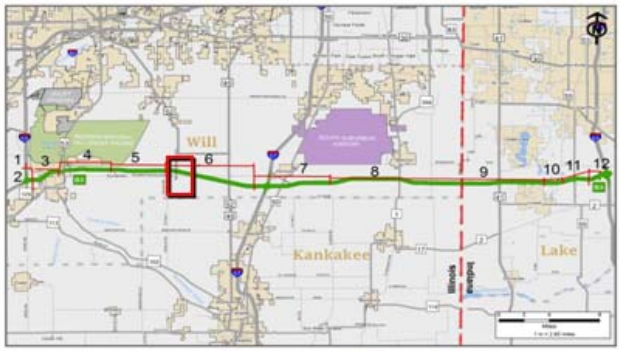
Conclusion: An interchange at Wilton Center Road is carried forward as part of each alternative in Section 3.0 of the DEIS, based on providing additional access for emergency responders. However, the interchange type is further modified as part of alternative worksheet A-11.

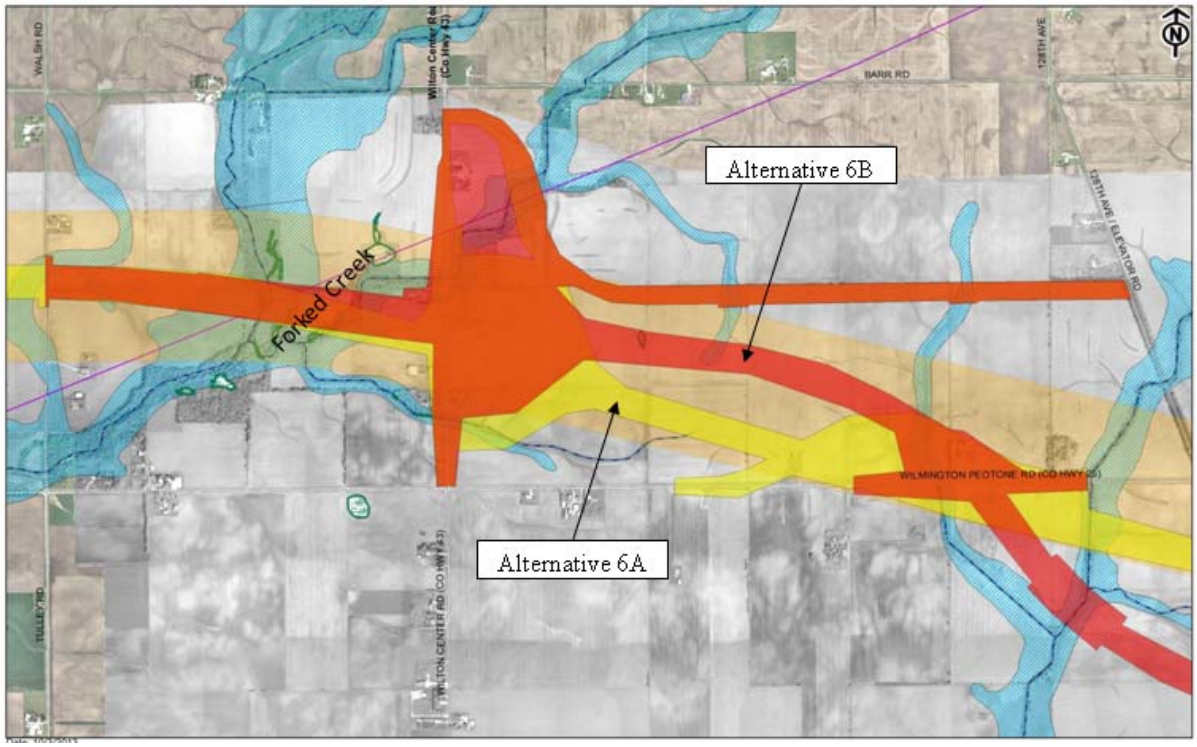
Figure D-14. Alternatives Worksheet

Alternative description: An alternative within Section 6 at the location indicated on the map key below was evaluated. This alternative includes changing the interchange type at Wilton Center/Co Hwy 43 and providing access to multiple landlocked parcels.

Reason for Alternative: This alternative was evaluated based on further analysis of interchange types and impacts as discussed in the Wilton Center/Co Hwy 43 interchange type study. The Will County Farm Bureau also identified multiple parcels between Elevator Road and Wilton Center/Co Hwy 43 as landlocked.

Map Key:





Impacts Avoided: This alternative would reduce the number of waterway crossings within the interchange and avoid impacts to 1 residential building, 1 agricultural building and 3 non-agricultural buildings.

New Impacts: This alternative would result in an additional 4.8 acres of floodplain impacts.

Transportation Performance Impacts: This alternative would provide the same reduction of 2,100 daily vehicle hours traveled as the Wilton Center/Co Hwy 43 Interchange Type 1. Access to landlocked parcels would also be provided.

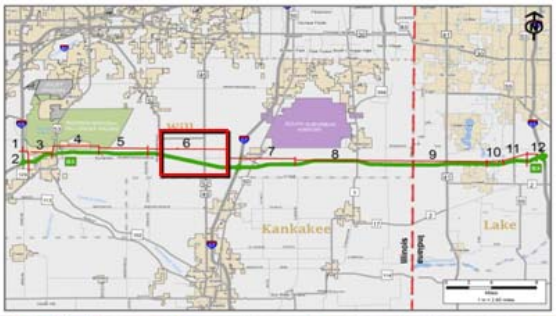
Conclusion: Interchange Type 2 (a full access interchange) is further analyzed as part of each alternative within Section 3.0 of the DEIS. Interchange Type 1 (an alternative full access interchange), as well as Interchange Type 3 (an emergency access only alternative), were eliminated from further consideration. These revisions were incorporated in the later development of Alternatives 6A and 6B as shown above.

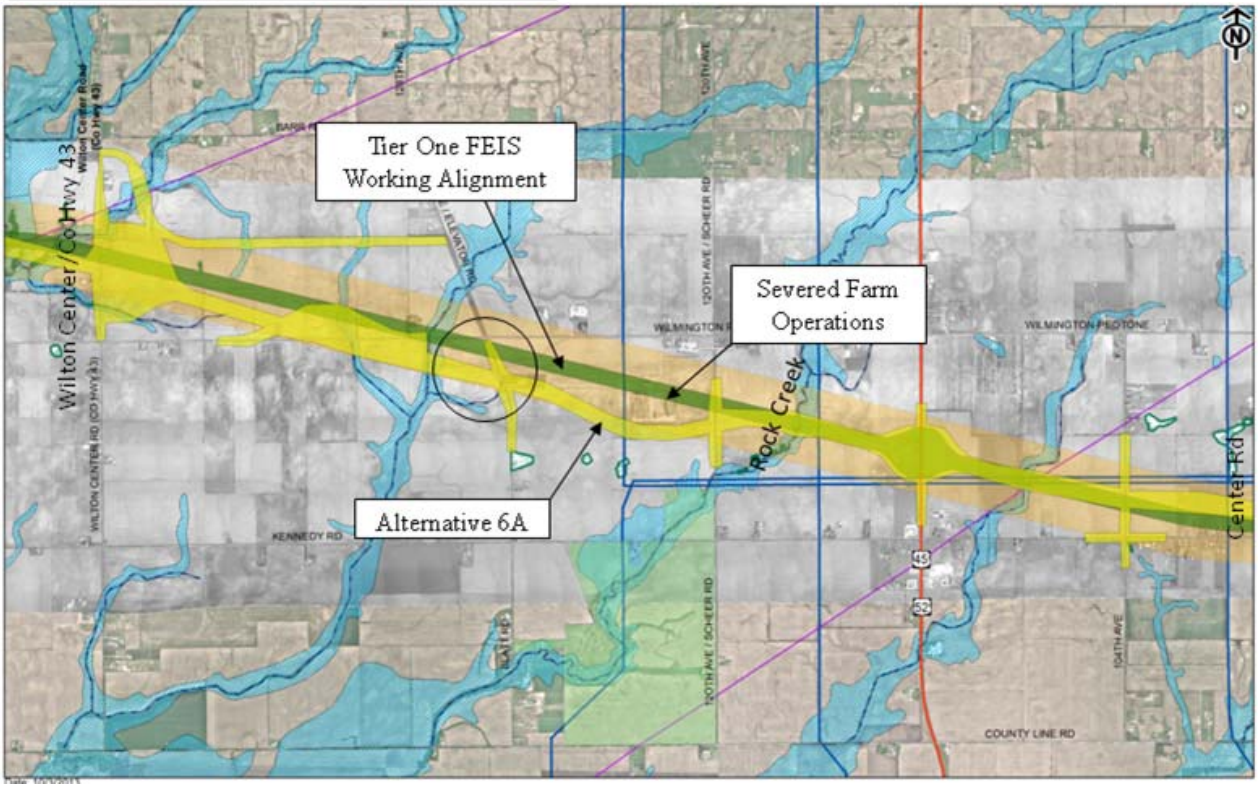
Figure D-15. Alternatives Worksheet

Alternative description: An alternative within Section 6 at the location indicated on the map key below was evaluated. This alternative includes shifting the alignment from Wilton Center Road to Center Road as compared to the Tier One working alignment. This alternative is located partially outside of the Tier One corridor as shown below.

Reason for Alternative: This alternative (6A) was evaluated to avoid a potentially historic property at 13150 W. Wilmington Peotone Road, which has since received a preliminary determination to be not eligible by Illinois Historic Preservation Agency.

Map Key:





Impacts Avoided: As compared to the Tier One working alignment, this alternative would reduce impacts to a large compost farm by limiting impacts to the southern portion of the compost farm rather than severing operations within this portion of Section 6. Additionally, impacts to 1 residential, 2 commercial, 1 agriculture buildings and 2 non-agriculture buildings would be avoided.

New Impacts: This alternative would result in an additional 0.2 acres of wetland impacts and 11.5 acres of floodplain impacts within this portion of Section 6.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

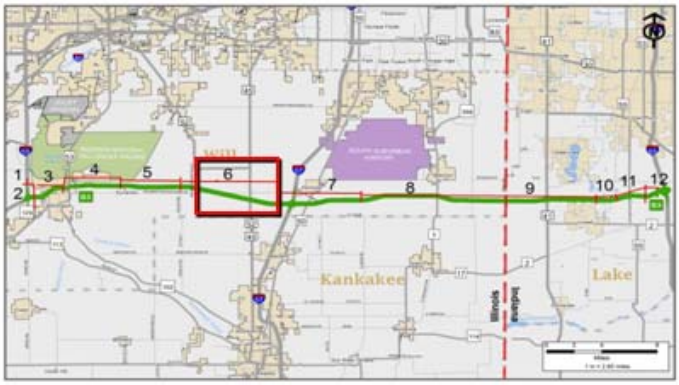
Conclusion: This alternative is carried forward for further analysis within Section 3.0 of the DEIS, based on reduction of building impacts.

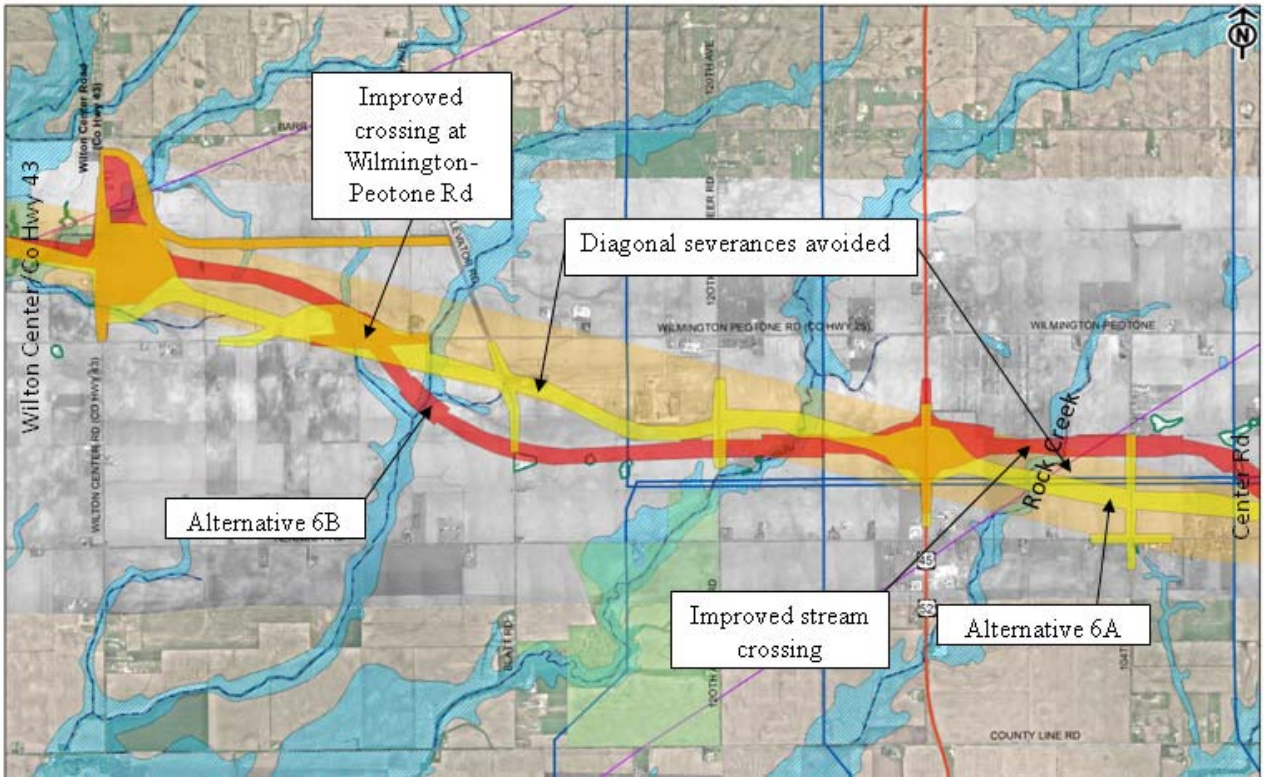
Figure D-16. Alternatives Worksheet

Alternative description: An additional alternative within Section 6 at the location indicated on the map key below was evaluated. This alternative includes further shifting the alignment from Wilton Center Road to Center Road as compared to Alternative 6A. This alternative is also located partially outside of the Tier One corridor as shown below.

Reason for Alternative: This alternative (6B) was evaluated to reduce diagonal severances, improve the Wilmington-Peotone roadway crossing and improve the water crossing at Rock Creek.

Map Key:





Impacts Avoided: This alternative would eliminate eleven diagonal property severances, eliminate the need to re-align approximately one mile of Wilmington Peotone Rd, improve the water crossing at Rock Creek and reduce building impacts by 2 as compared to Alternative 6A.

New Impacts: This alternative would result in an additional 6.2 acres of wetland impacts and 4.3 acres of floodplain impacts as compared to Alternative 6A.

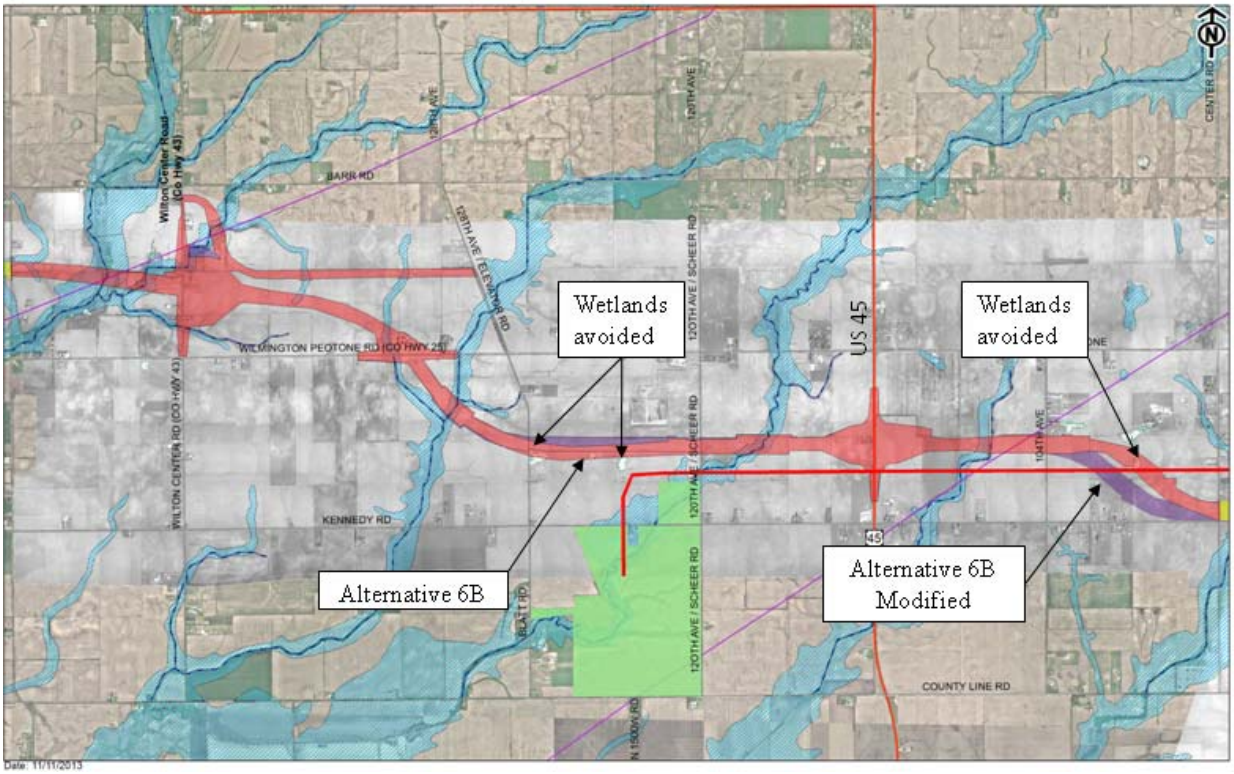
Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

Conclusion: This alternative is carried forward for further analysis within Section 3.0 of the DEIS, but is further revised as discussed in Alternative Worksheet D-17.

Figure D-17. Alternatives Worksheet

Alternative description: A further revision of Alternative 6B at the location indicated on the map key below was evaluated.
Reason for Alternative: This further revision was considered to further reduce the overall agricultural property impacts and parcel severances based on coordination with agricultural property owners and the Will County Farm Bureau.

Map Key:



Impacts Avoided: As compared to Alternative 6A, this revision to Alternative 6B would reduce farmland impacts by 42.1 acres, would reduce farm parcel severances and in particular diagonal parcel severances, and would reduce residential and agricultural building impacts by 5.

New Impacts: As compared to Alternative 6A, this revision to Alternative 6B would increase wetland impacts by 0.5 acres with no high quality wetland impacts, floodplain impacts by 7.5 acres, and forest impacts by 2.2 acres.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

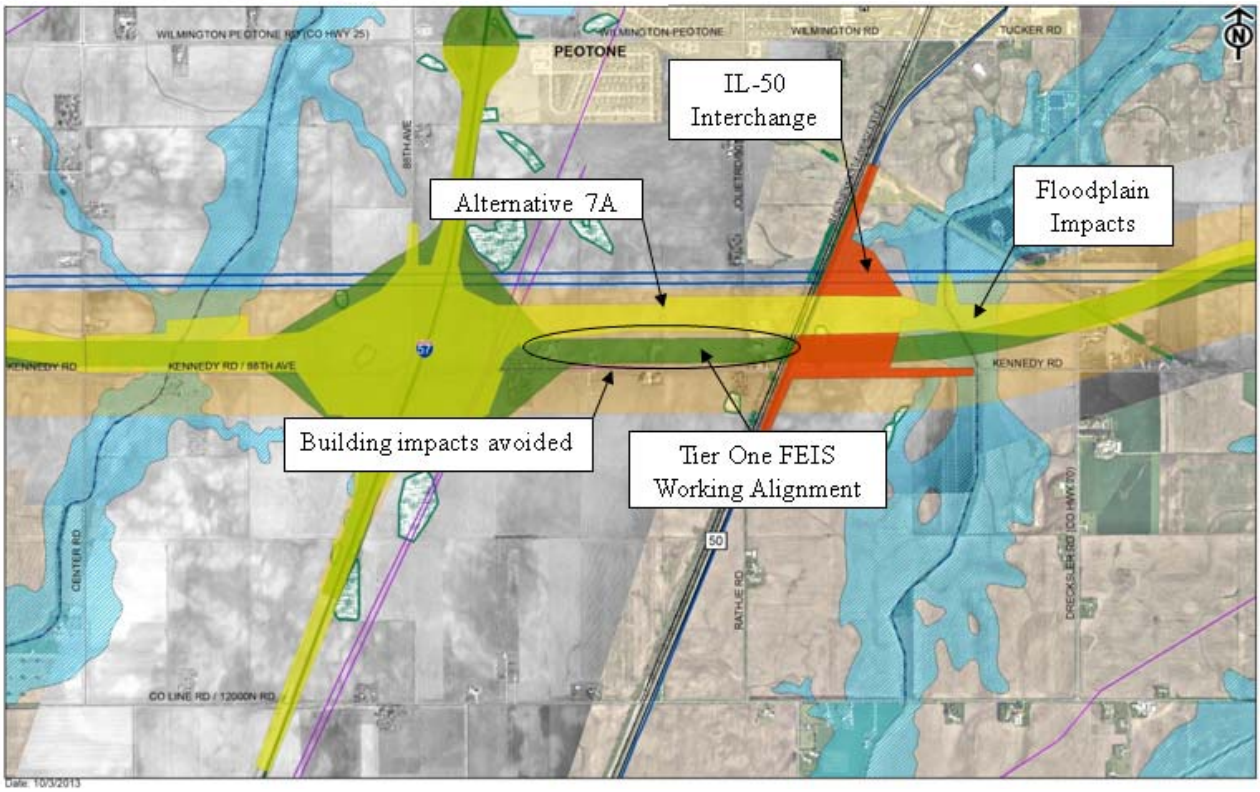
Conclusion: Based on the reduction in overall farmland impacts, farm parcel severances, and building impacts, with 0.5 acre increase in wetland impacts with no high quality wetland impacts, this revision is carried for further analysis within Section 3.0 of the DEIS.

Figure D-18. Alternatives Worksheet

Alternative description: An alternative within Section 7 at the location indicated on the map key below was evaluated. This alternative includes shifting the alignment to the north in between I-57 and IL-50/Governors Hwy, as compared to the Tier One working alignment.

Reason for Alternative: This alternative (7A) was evaluated to avoid a number of residential and farm buildings and to avoid displacement of the publicly-owned Peotone Township building along Kennedy Road.

Map Key:



Impacts Avoided: Within this portion of Section 7, this alternative would avoid impacts to 5 residential buildings, 2 commercial buildings, 18 agricultural and farm buildings and the publicly-owned Peotone township building, and would result in a reduction of 1.6 acres of wetland impacts.

New Impacts: Within this portion of Section 7, this alternative would result in an additional 19.3 acres of floodplain impacts

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

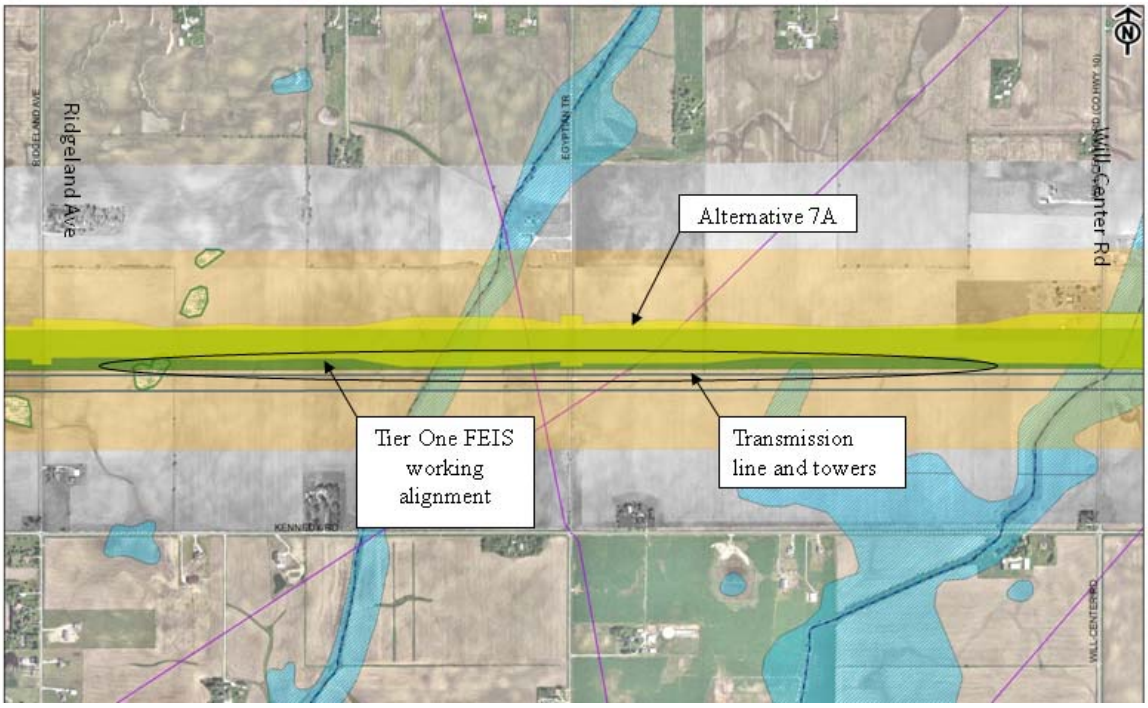
Conclusion: This alternative is carried forward for further analysis as part of each alternative within Section 3.0 of the DEIS, based on minimizing impacts and the avoidance of the township building.

Figure D-19. Alternatives Worksheet

Alternative description: An alternative within Section 7 at the location indicated on the map key below was evaluated. This alternative includes shifting the alignment to the north approximately 80 feet in between Ridgeland Avenue and Will-Center Road, as compared to the Tier One working alignment.

Reason for Alternative: This alternative (7A) was evaluated to avoid Commonwealth Edison property and the resulting potential tower relocations.

Map Key:



Impacts Avoided: Within this portion of Section 7, this alternative would avoid impacts to the Commonwealth Edison property and multiple transmission towers. This alternative would also result in a reduction of 0.6 acres of wetland impacts.

New Impacts: Within this portion of Section 7, this alternative would result in 2 agricultural building impacts.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

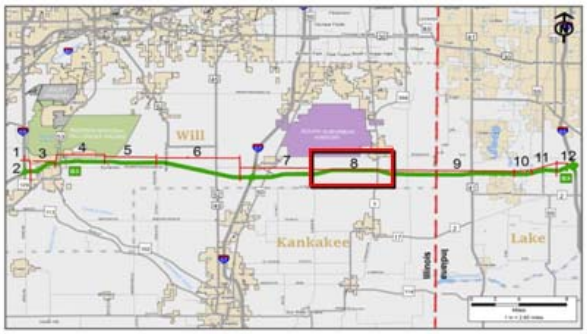
Conclusion: Alternative 7A is carried forward for further analysis as part of each alternative within Section 3.0 of the DEIS, based on minimizing impacts.

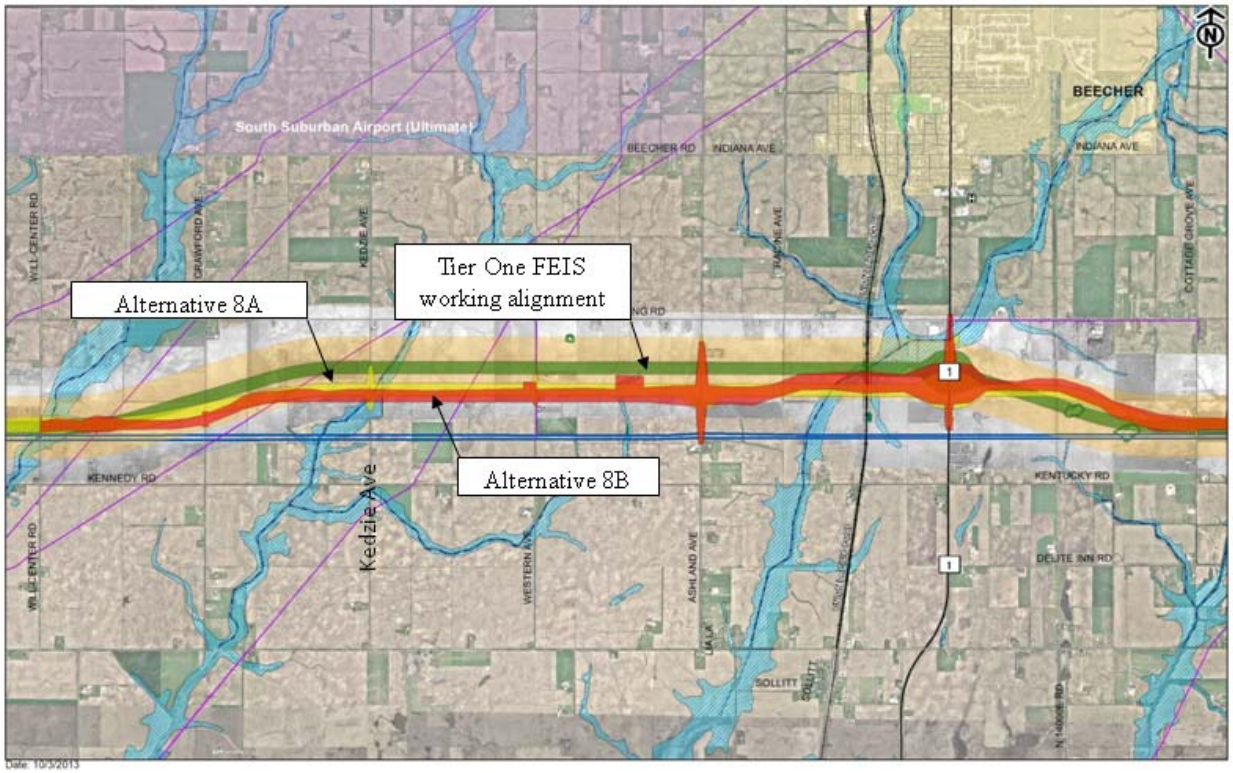
Figure D-20. Alternatives Worksheet

Alternative description: An alternative within Section 8 at the location indicated on the map key below was evaluated. This alternative includes shifting the alignment to the south as compared to the Tier One working alignment in between Kedzie Avenue and IL-1/Dixie Highway.

Reason for Alternative: An initial Alternative 8A was evaluated to reduce property impacts by shifting south and following section lines, and to eliminate a 700 foot long bridge over a combined railroad and stream crossing. A further modification as Alternative 8B was then evaluated to further reduce property impacts by more closely following section lines.

Map Key:





Impacts Avoided: Within this portion of Section 8, this alternative would reduce 12 parcel severances and result in a reduction of 5.5 acres of wetland impacts.

New Impacts: Also within this portion of Section 8, this alternative would not result in any substantial changes to other resource impacts.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

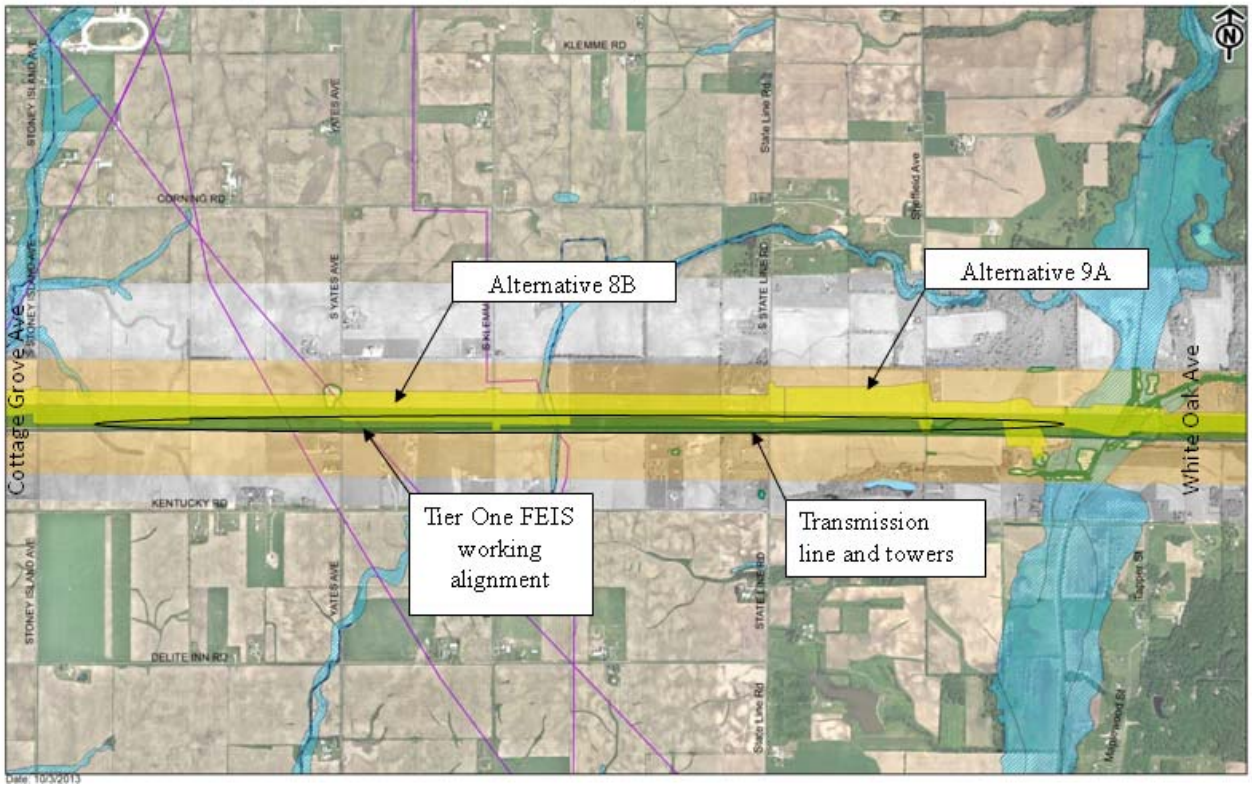
Conclusion: Alternative 8B within this portion of Section 8 is carried forward for further analysis as part of each alternative within Section 3.0 of the DEIS, based on minimizing impacts. Alternative 8A was eliminated from further consideration since Alternative 8B is a further revised and improved alternative.

Figure D-21. Alternatives Worksheet

Alternative description: An alternative within Section 8 and 9 at the location indicated on the map key below was evaluated. This alternative includes shifting the alignment approximately 80' north between Cottage Grove Ave and White Oak Ave, as compared to the Tier One working alignment.

Reason for Alternative: This alternative (8B and 9A) was evaluated to avoid Commonwealth Edison right of way and potential tower relocations.

Map Key:



Impacts Avoided: This alternative would avoid Commonwealth Edison right of way and potential tower relocations.

New Impacts: This alternative would result in an additional 1.9 acres of wetland impacts and 4 acres of floodplain impacts, which can be attributed to the addition of cross roads and accommodating drainage into the footprint.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

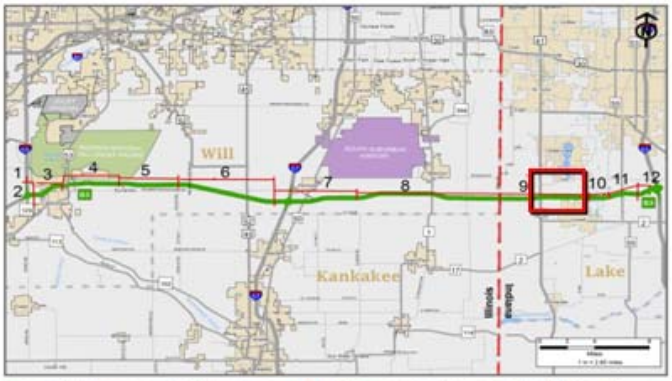
Conclusion: This alternative is carried forward for further analysis within Section 3.0 of the DEIS, based on minimizing impacts. Alternative 8B is carried forward as part of each alternative in Section 3.0, whereas 9A is carried forward as part of Alternatives 2 and 3.

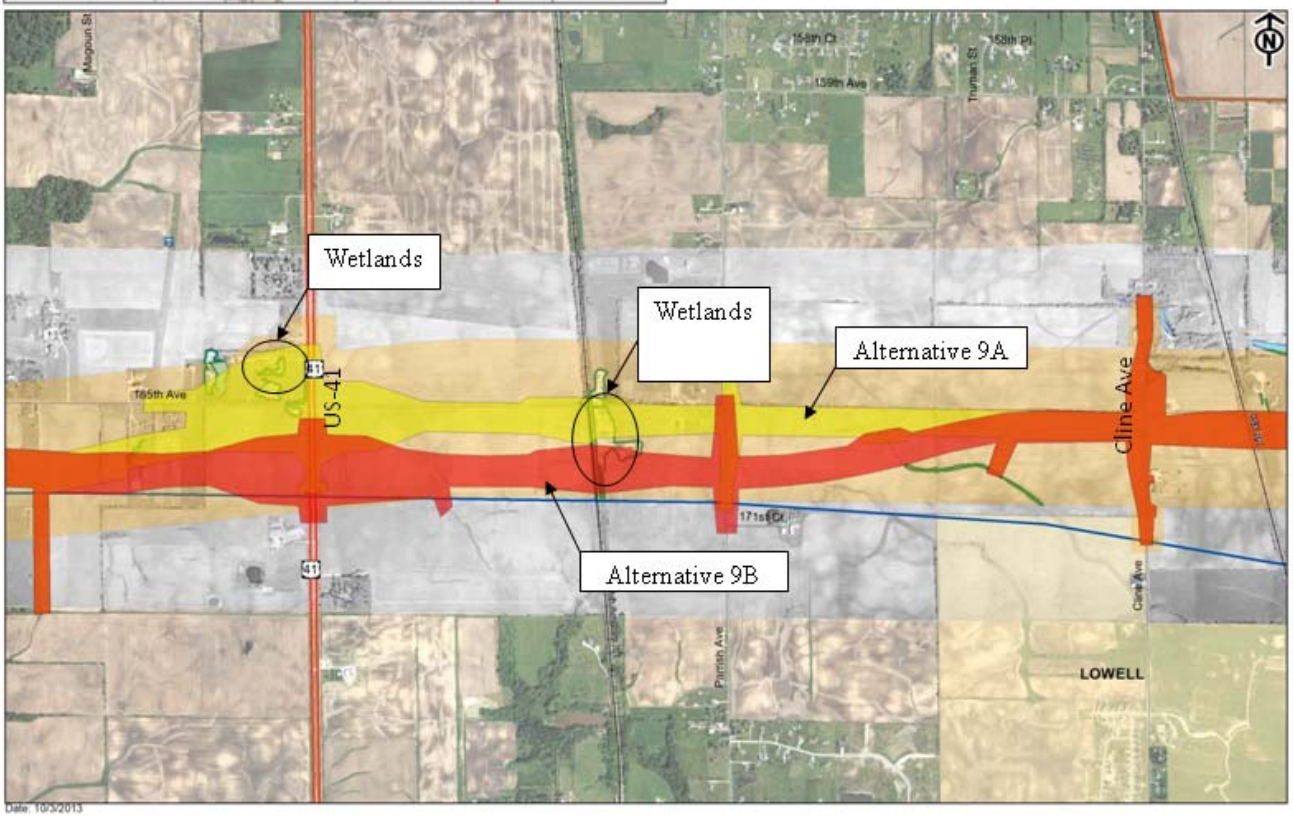
Figure D-22. Alternatives Worksheet

Alternative description: An additional alternative within Section 9 at the location indicated on the map key below was evaluated. This alternative includes shifting the alignment to the south between US-41 and Cline Avenue as compared to the Tier One working alignment.

Reason for Alternative: This alternative (9B) was evaluated to minimize wetland impacts.

Map Key:





Impacts Avoided: Within this portion of Section 9, this alternative would result in reducing impacts to 4.0 acres of wetlands, 0.8 acres of water bodies, 2.6 acres of floodplains and avoid 2 residential building impacts as compared to Alternative 9A.

New Impacts: This alternative would not result in any substantial changes to other resource impacts.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

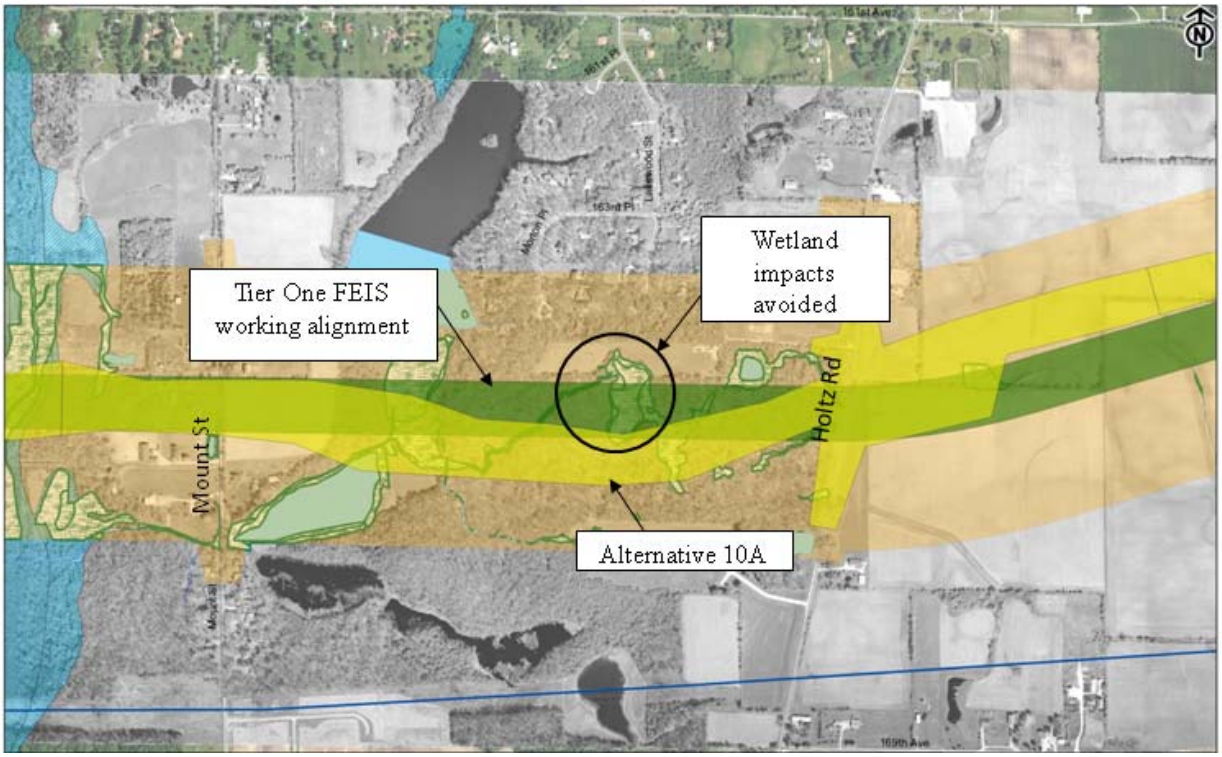
Conclusion: Alternative 9B is carried forward for further analysis as part of Alternative 1 within Section 3.0 of the DEIS, based on further minimizing wetland impacts.

Figure D-23. Alternatives Worksheet

Alternative description: An alternative within Section 10 at the location indicated on the map key below was evaluated. This alternative includes shifting the alignment to the south between Mount Street and Holtz Road as compared to the Tier One working alignment.

Reason for Alternative: This alternative (10A) was evaluated to minimize forest impacts.

Map Key:



Impacts Avoided: Within this portion of Section 10, Alternative 10A would increase impacts to 0.7 acres of wetland features as compared to the Tier One working alignment.

New Impacts: Within this portion of Section 10, this alternative would decrease 2.0 acres of forest impacts as compared to the Tier One working alignment.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

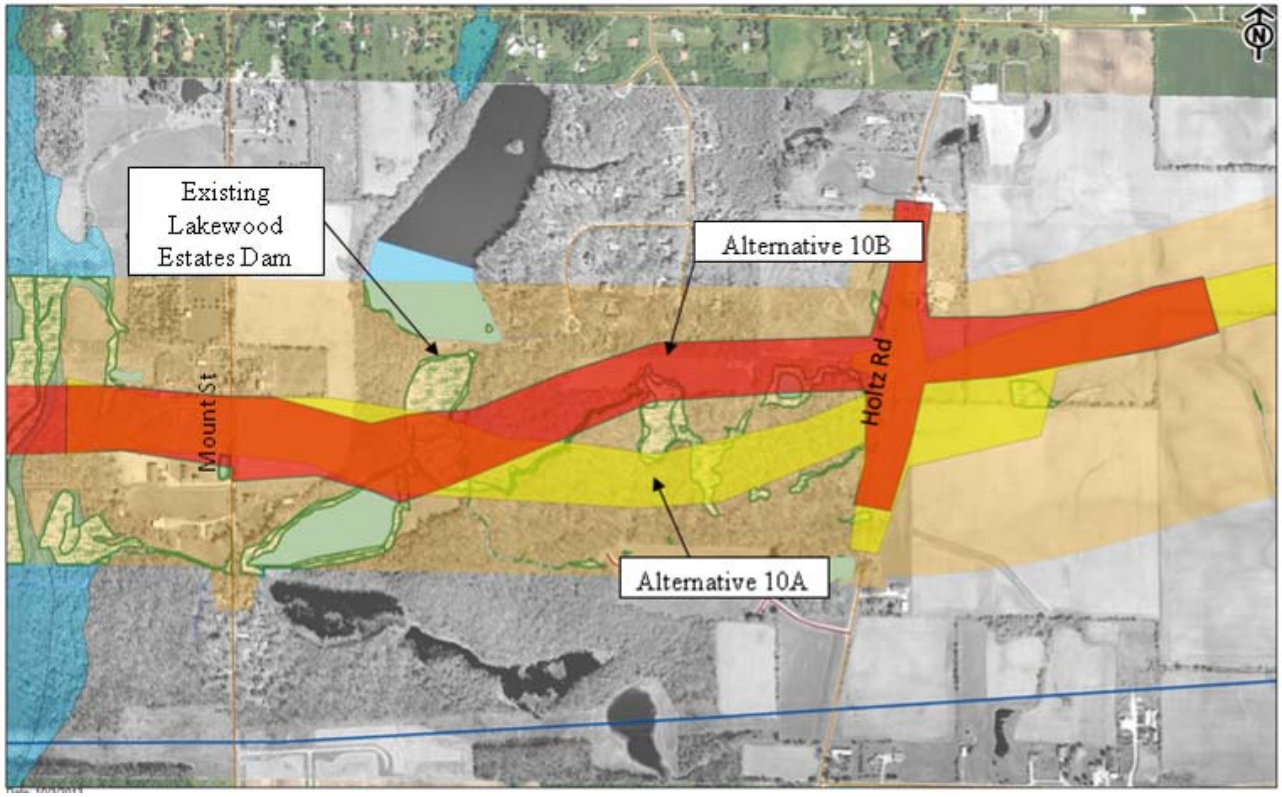
Conclusion: Alternative 10A is carried forward for further analysis as part of Alternatives 2 and 3 within Section 3.0 of the DEIS, based on minimizing forest impacts.

Figure D-24. Alternatives Worksheet

Alternative description: An additional alternative within Section 10 at the location indicated on the map key below was evaluated. This additional alternative includes shifting the alignment to the north between Mount Street and Holtz Road as shown below.

Reason for Alternative: This alternative (10B) was evaluated to minimize forested area impacts.

Map Key:



Impacts Avoided: As compared to Alternative 10A, this alternative would reduce forest impacts by 11.3 acres and wetland impacts by 0.9 acres.

New Impacts: This alternative would increase water body impacts by 0.6 acres as compared to Alternative 10A, and would impact 1 commercial and 1 farm building. Wider bridge structures would be required to meet sight distance requirements and less than desirable design radii were used.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

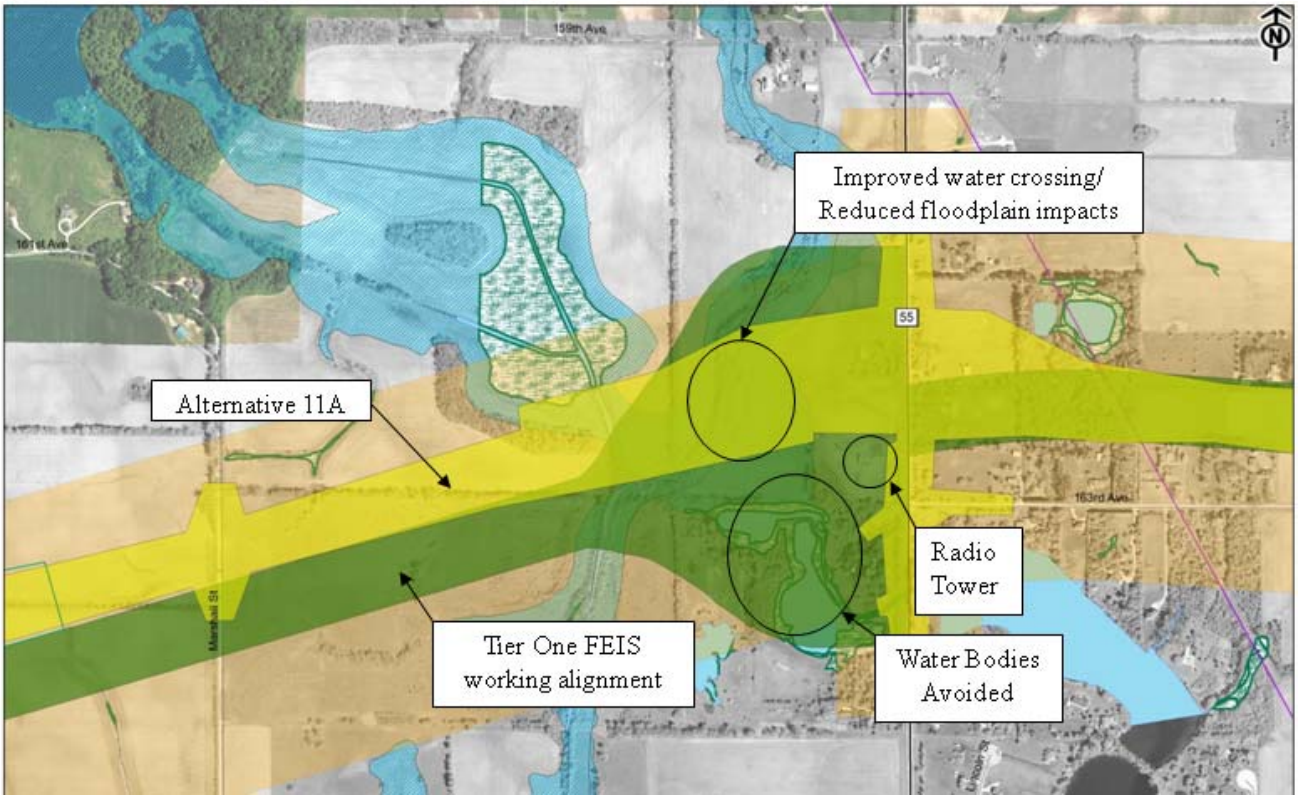
Conclusion: Alternative 10B is carried forward for further analysis as part of Alternative 1 within Section 3.0 of the DEIS based on minimizing forest and wetland impacts.

Figure D-25. Alternatives Worksheet

Alternative description: An alternative within Section 11 at the location indicated on the map key below was evaluated. This alternative includes shifting the alignment to the north, west of and at SR 55 as compared to the Tier One working alignment.

Reason for Alternative: This alternative (11A) was evaluated to avoid impacts to a radio transmission tower, wetlands, and to reduce the complexity of a stream crossing by avoiding a large skew angle.

Map Key:



Impacts Avoided: This alternative would avoid impacts to a radio transmission tower and would reduce wetland impacts by 2.8 acres, water body impacts by 5.4 acres and floodplain impacts by 15.3 acres.

New Impacts: This alternative would not result in substantial changes in other resource impacts.

Transportation Performance Impacts: This alternative would not result in any discernible transportation benefits.

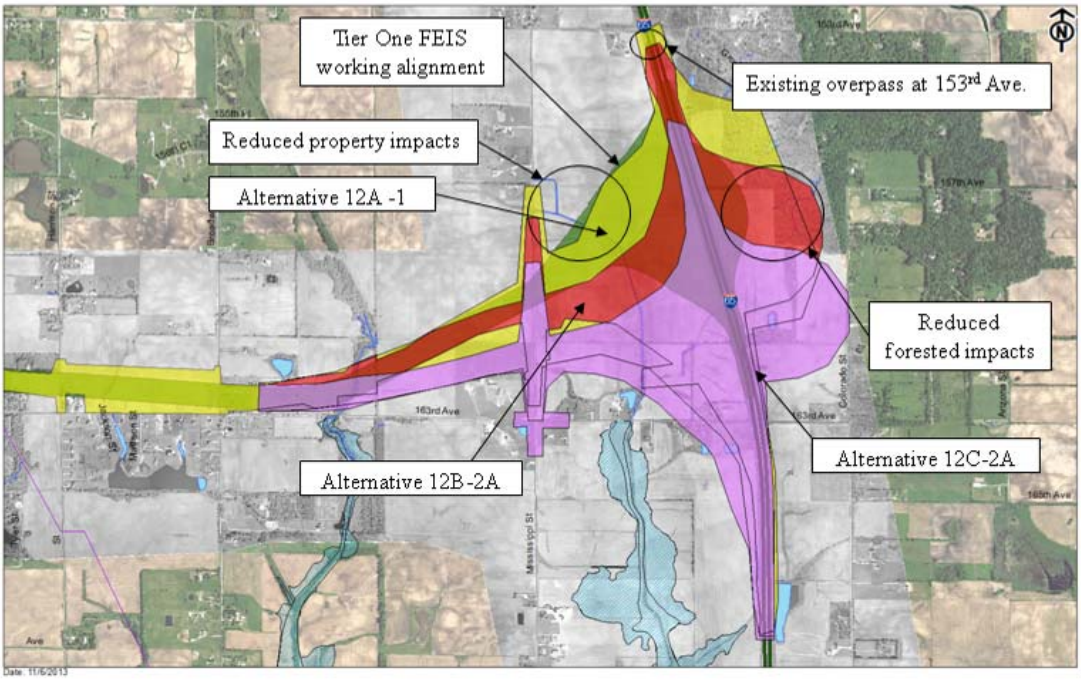
Conclusion: Alternative 11A is carried forward for further analysis as part of each alternative within Section 3.0 of the DEIS, based on minimizing impacts.

Figure D-26. Alternatives Worksheet

Alternative description: Alternatives within Section 12 at the location indicated on the map key below were evaluated. These alternatives include shifting the alignment to the south from east of Mississippi Street to I-65 as compared to the Tier One working alignment.

Reason for Alternative: These alternatives (12A, 12B, 12C) were evaluated in conjunction with a revised interchange type at I-65 to improve safety, to eliminate an impact at the 153rd Avenue overpass, and to reduce the property impacts.

Map Key:



Impacts Avoided: As compared to Alternative 12A, Alternative 12B (includes Interchange Type 2A) would reduce wetland impacts by 3.7 acres, water bodies impacts by 1.7 acres, and forest impacts by 15.3 acres. Also as compared to Alternative 12A, Alternative 12C (included Interchange Type 2A) would reduce wetland impacts by impacts to 3.6 acres, water bodies impacts by 0.4 acres, and forest impacts by 36.9 acres, entirely avoiding forest impacts. Both Alternatives 12B and 12C would avoid impacts to the existing 153rd Avenue overpass.

New Impacts: Alternative 12C would result in 3 new building impacts as compared to Alternative 12A.

Transportation Performance Impacts: Interchange Type 2A is predicted to have fewer crashes than Type 1. The 12B and 12C alternatives fall short of rural interchange spacing policy along I-65 by 0.3 and 0.6 miles respectively, and the 12C alternative would require an auxiliary lane between the interchange ramps and a weigh-station to the south.

Conclusion: Based on the variation of impacts, transportation benefits, and design considerations between these three alternatives, Alternatives 12A, 12B and 12C are carried forward for further analysis as part of Alternatives 3, 2, and 1 respectively within Section 3.0 of the DEIS.